Faculty are required to have the outline submitted to the Academic Affairs Office. The course outline is the form used for approval of new courses by the Collegewide Curriculum Committee.

DEPT. AGRICULTURE COURSE NO. AGRI 2204

NUMBER OF CREDITS: 3

COURSE TITLE: Intro to GPS/GIS

CATALOG DESCRIPTION: This course is intended to serve as an introduction to GPS (Global Positioning Systems) and GIS (Geographical Information Systems) with an emphasis on agricultural uses and precision farming.

AUDIENCE: Students, farm business operators, farm managers or others with consent of instructor.

FULFILLS MN TRANSFER CURRICULUM AREA(S): (Leave blank if not applicable)

PREREQUISITES OR NECESSARY ENTRY SKILLS/KNOWLEDGE: None

LENGTH OF COURSE: 1 Semester

THIS COURSE IS USUALLY OFFERED:
Every other year □ fall □ spring □ summer □ undetermined □

Four goals are emphasized in course at Minnesota West Community & Technical College:

1) ACADEMIC CONTENT:
   Students will be assessed in the following manner
   a. Tests and quizzes
   b. Written reports
   c. Oral Presentations
   d. Other assessments as deemed necessary by instructor

2) THINKING SKILLS:
   a. Examine current uses of GPS/GIS in agriculture
   b. Calculate the cost savings of GPS/GIS in a farm operation
   c. Calculate the cost of implementing a GPS/GIS program on a farm operation
   d. Anticipate future uses or expanded uses of GPS/GIS in agriculture

3) COMMUNICATIONS SKILLS:
   a. Students will be required to provide oral presentations to fellow students
   b. Students will be required to compose written papers describing the topic area
4) HUMAN DIVERSITY:

TOPICS TO BE COVERED: Current use of GPS/GIS, economics of a GPS/GIS plan implementation, other precision farming tools, and other topics developed by outside presenters.

LIST OF EXPECTED COURSE OUTCOMES: Develop a more comprehensive understanding of the uses of GPS/GIS in production agriculture

LEARNING/TEACHING TECHNIQUES used in the course are:
- Collaborative Learning
- Student Presentations
- Creative Projects
- Lecture
- Demonstrations
- Lab
- Problem Solving
- Interactive Lectures
- Individual Coaching
- Films/Videos/Slides
- Other (describe below)

ASSIGNMENTS AND ASSESSMENTS FOR THIS CLASS INCLUDE:
- Reading
- Oral Presentations
- Textbook Problems
- Group Problems
- Other (describe below)
- Tests
- Worksheets
- Papers
- Individual Projects
- Collaborative Projects
- Portfolio
- Term Paper

TEXT: The Precision-Farming Guide for Agriculturists by John Deere Publications. Each student will contribute a total of 54 hours of effort per credit toward the completion of this course.

EXPECTED STUDENT LEARNING OUTCOMES: Students will be evaluated on their ability to:
1) Examine current uses of GPS/GIS in production agriculture
2) Demonstrate a working knowledge of a handheld GPS device
3) Analyze the costs/benefits of GPS/GIS implemented on a farm operation

Veteran Services: Minnesota West is dedicated to assisting veterans and eligible family members in achieving their educational goals efficiently. Active duty and reserve/guard military members should advise their instructor of all regularly scheduled military appointments and duties that conflict with scheduled course requirements. Instructors will make every effort to work with the student to identify adjusted timelines. If you are a veteran, please contact the Minnesota West Veterans Service Office.

The information in this course outline is subject to revision

To receive reasonable accommodations for a documented disability, please contact the campus Student Services Advisor or campus Disability Coordinator as arrangements must be made in advance. In addition, students are encouraged to notify their instructor.

This document is available in alternative formats to individuals with disabilities by contacting the Student Services Advisor or by calling 800-658-2330 or Minnesota Relay Service at 800-627-3529 or by using your preferred relay service.

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