

Department:

Precision Agriculture

Course Description:

The primary goal and function of this capstone course is to assist students in combining the knowledge and skills acquired throughout the program to form a coherent problem solving resource. The effectiveness of this resource is exhibited in the ability of the student to employ multiple tools found within the discipline to make sound decisions independently in the field. To do this, students will first be exposed to multiple facets of the industry through a multi-lecture series on agribusiness management and strategy. Secondly, to complete the course and the Precision Agriculture curriculum, students will present an original project to an industry panel demonstrating their ability to integrate and communicate their knowledge across the discipline.

Course Competencies:

Upon completion of this course, the student should be able to:

1. Describe and execute the best method for conducting an on-farm research project.
2. Determine the proper equipment for carrying out an on-farm experiment.
3. Prepare the necessary supporting documents and/or imagery for a research project or portfolio.
4. Describe the current agribusiness environment and the role Precision Agriculture plays within the industry.
5. Conduct a S.W.O.T. (Strengths, Weaknesses, Opportunities, Threats) analysis of an agribusiness and provide insight on its role in the industry.
6. Defend the findings of an original research project using the fundamentals of the discipline following the outline of the Scientific Method.

Course Content:

- A. Agribusiness and Agriculture Industry
 1. Environments of Agribusinesses
 2. Managerial Roles
 3. Sustainable Agriculture
- B. Strategic Planning and Analysis
 1. S.W.O.T Analysis
 2. Problem Solving

3. Project Planning
- C. Organizational Behavior
 1. The Role of Leadership
 2. Personalities
 3. Generational Dynamics
- D. Research Strategies
 1. The Scientific Method
 2. Systems and Strategy
- E. Student Research Project
 1. Identify Project
 2. Create Outline and Finding Supporting Documents
 3. Conduct Research
 4. Summarize Findings
 5. Present Project to Industry Panel

Learning Assessments:

- A. Discussion Questions
- B. Graded Assignments
- C. Comprehensive Assignments
- D. Research Project and Final Presentation

Instructional Materials:

Printed materials and videos will be provided in this course. No textbook required.

**Guidelines for Requesting Accommodations Based on
Documented Disability or Medical Condition**

It is the intention of Highland Community College to work toward full compliance with the Americans with Disabilities Act, to make instructional programs accessible to all people, and to provide reasonable accommodations according to the law.

Students should understand that it is their responsibility to self-identify their need(s) for accommodation and that they must provide current, comprehensive diagnosis of a specific disability or medical condition from a qualified professional in order to receive services. Documentation must include specific recommendations for accommodation(s). Documentation should be provided in a timely manner prior to or early in the semester so that the requested accommodation can be considered and, if warranted, arranged.

In order to begin the process all students **must** complete the “Disabilities Self-Identification Form” at this link: <https://highlandcc.edu/pages/disability-services>.

This form can also be accessed at the Highland Community College homepage under Students Services/Student Resources/Disability Service or by contacting the Disabilities Coordinator.