

**SOUTHEAST COMMUNITY COLLEGE**  
**COURSE SYLLABUS**  
**TRAN-WELDING-AG**  
**Agriculture Management & Production Program**  
**Revision Date: August 2020**  
[Syllabus Statements](#)

**I. CATALOG DESCRIPTION**

**Course Number:** AGRI 2287  
**Course Title** Advanced Crop Management  
**Prerequisite(s):** AGRI 1135, AGRI 1131, AGRI 1153

**Catalog Description:** Study of crop management, including the major elements of hybrid selection, fertilization requirements, pest control strategies for crops grown on the High Plains.

**Credit Hours:** 3.0  
**Class Hours:** 45  
**Lab Hours:** -  
**Total Contact Hours:** Total of Class + Lab Hours 45

**II. COURSE OBJECTIVES:** *Course will:*

- A. Discuss crop rotations and other cropping systems.
- B. Discuss and practice budgeting for cropping decisions and management plans.
- C. Discuss soil fertility reports and recommendations.
- D. Identify crop hybrid & variety selection criteria.
- E. Discuss crop genetics, traits, and breeding technology and their impact on management decisions.
- F. Demonstrate proper pesticide selection for common crops including corn, soybeans, wheat and alfalfa.
- G. Identify economic calculations for pesticide applications.
- H. Discuss major crop management practices that occur during each stage of growth for corn, sorghum, soybeans and alfalfa.
- I. Discuss soil and water conservation management practices.

**III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES:**

Student will be able to:

- A. Identify the benefits of alternative cropping systems.
- B. Demonstrate his or her ability to select corn hybrids and soybean varieties from important selection criteria.
- C. Demonstrate his or her ability to develop a herbicide plan based off economics, IPM, and pest pressure.
- D. Understand soil fertility reports and develop nutrient recommendations.
- E. Identify and understand the role of current traits and genetics in common crops.
- F. Calculate the economic impact of applying seasonal pesticides.

- G. Assess the costs of current cropping practices.
- H. Demonstrate his or her ability to determine the impact of cropping practice costs.
- I. Identify options for soil and water conservation management practices.

**B. GENERAL EDUCATION LEARNING OUTCOMES**

**GELO #3: Critical Thinking & Problem Solving**

Critical thinkers have the ability to evaluate a problem or assumption and determine an appropriate course of action. They use reason and evidence to make judgments and decisions. Critical thinking and problem solving skills rank highly among employer expectations.

**Outcomes:**

- 1) Synthesize information to arrive at reasoned solutions to problems.

**IV. CONTENT/TOPICAL OUTLINE (*course outline may provide more detailed information*)**

- A. Crop growth and development as it relates to environment and production practices
- B. Cropping systems
- C. Adaptation of global positioning mapping to modern production and GPS data management
- D. Nutrient Uptake and Use
- E. Diseases and Insects of the high plains and their prevention/control

**V. INSTRUCTIONAL MATERIALS**

- A. **Required Text(s):** 2017 Guide for Weed Management in Nebraska
- B. **Other Resources:** Handouts provided in class, Seed selection books/resources, Calculator

**VI. METHODS OF PRESENTATION/INSTRUCTION**

Methods of presentation typically include a combination of the following:

- A. Lecture
- B. Class discussion
- C. Lab

**VII. METHODS OF EVALUATION**

Methods of evaluation typically include a combination of the following:

- A. Quizzes and exams
- B. Crop, disease and insect research/ writing assignments
- C. Presentations
- D. Daily in-class evaluations
- E. Professionalism in the classroom
- F. Cropping system and nutrient management project

**SCC STANDARD GRADING SCALE POLICY:**

<b>A+ 95-100</b>	<b>C+ 75-79</b>
<b>A 90-94</b>	<b>C 70-74</b>
<b>B+ 85-89</b>	<b>D+ 65-69</b>
<b>B 80-84</b>	<b>D 60-64</b>
	<b>F Below 60</b>

**VIII. SPECIFIC COURSE REQUIREMENTS:**

- a. Successful completion of all exams, projects, and assignments