

**SOUTHEAST COMMUNITY COLLEGE**  
**COURSE SYLLABUS**  
**TRAN-WELDING-AG**  
**Agriculture Management & Production Program**  
**Revision Date: August 2020**

**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