

**SOUTHEAST COMMUNITY COLLEGE**  
**COURSE SYLLABUS**  
**TRAN-WELDING-AG**  
**Agriculture Management & Production Program**  
**Revision Date: August 2021**  
[Syllabus Statements](#)

**I. CATALOG DESCRIPTION**

<b>Course Number:</b>	<b>AGRI 2253</b>
<b>Course Title</b>	Grain Harvesting and Management
<b>Prerequisite(s):</b>	AGRI1131
<b>Catalog Description:</b>	Methods of cereal grain crop storage. Maintenance of grain quality in farm and agribusiness storage facilities. Operation and adjustment of grain drying and handling equipment.
<b>Credit Hours:</b>	4.0
<b>Class Hours:</b>	45
<b>Lab Hours:</b>	45
<b>Total Contact Hours:</b>	Total of Class + Lab Hours 90

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

1. Learn how harvesting equipment works.
2. Demonstrate how to adjust and maintain combines and headers.
3. Safely operate and adjust a combine in field conditions.
4. Learn service and maintenance procedures for harvesting equipment.
5. Learn how to calculate combine machine loss.
6. Calculate machine capacity for various harvesting operations.
7. Demonstrate how to safely transport and store harvested grain.
8. Identify and discuss different grain crops stored on farm and in commercial storage.
9. Discuss grain handling and storage safety procedures.
10. Identify types of grain drying systems.
11. Learn management techniques for maintaining stored grain.
12. Learn how to manage insects and pests in stored grain.

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

**A. STUDENT LEARNING OUTCOMES:** *Student will be able to:*

1. Adjust and maintain combines and headers.
2. Demonstrate and accomplish making field counts and determining field loss in actual field conditions.
3. Identify all parts, operate, and adjust a combine safely in field conditions.
4. Calculate machine capacity for various harvesting operations.
5. Demonstrate how to properly and safely transport and store harvested grain.
6. Identify and discuss the different grain crops stored on farm and in commercial storage.
7. Identify, use, and discuss various grain handling facilities.

## **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) Collect, identify, interpret and analyze data.

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

- A. Combine operation and adjustment
- B. Combine service and maintenance
- C. Field loss measurements
- D. Field capacity and field efficiency
- E. Grain crop identification
- F. Grain handling methods
- G. Grain storage and drying systems and facilities
- H. Grain grading factors

## **V. INSTRUCTIONAL MATERIALS**

**A. Required Text(s):** *Combine Harvesting FMO*, John Deere Current Edition; ISBN 0-86691-397-1

**B. Other Resources:**

Safety glasses, notebook, calculator, and protective clothing

## **VI. METHODS OF PRESENTATION/INSTRUCTION**

Methods of presentation typically include a combination of the following:

- a. Presentation methods will include, but are not limited to: slide and video presentations, research and writing assignments, lecture, problem solving, field trips, guest lectures and speakers.
- b. Laboratory assignments and tasks.
- c. Operation and adjustment of equipment

## **VII. METHODS OF EVALUATION**

Methods of evaluation typically include a combination of the following:

- A. Quizzes, tests, and exams
- B. Laboratory Exercises
- C. Problem Solving
- D. Daily Evaluation
- E. Capstone Experience

#### **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, homework, and other classroom assignments.
- b. Daily attendance of class sessions.
- c. Successful completion of laboratory and land lab assignments and operations.
- d. Student utilizing proper safety eye wear.
- e. Attendance of all field trips.
- f. The student will participate in activities that relate to this class and the Agriculture Business and Management Technology.