SOUTHEAST COMMUNITY COLLEGE
TRANSPORTATION OCCUPATIONS
DIESEL –AG EQUIPMENT SERVICE TECH
COURSE SYLLABUS
October 16, 2020
Syllabus Statements

I. CATALOG DESCRIPTION

Course Number: AGST2520
Course Title: Planting & Seeding Systems
Prerequisite(s): AGST 2410, AGST2420, AGST2430

Catalog Description: Theory, design, principles of operation, set-up, adjustments, and diagnostics, and repair of row-crop planting and seeding equipment. Theory, testing and repair of precision guidance and electronic monitoring and control systems. Safety as related to planting and seeding equipment is applied.

Credit Hour: 2.5
Class Hours: 15
Lab Hours: 68
Total Contact Hours: 83

II. COURSE OBJECTIVES: *Course will:*

A. Define types of planting and seeding equipment.
B. Define, plate, finger, brush, air and random metering systems used for planting and seeding.
C. Show how to perform diagnostics, service and repair of monitors an d electronic control systems.
D. Define guidance systems and controls.
E. Show how to calculate the capacities and efficiencies of planting and seeding implements.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES

A. STUDENT LEARNING OUTCOMES: *The student will be able to:*

1. Read and comprehend technical information found in textbooks, manuals, and operating instructions used in the classroom and lab
2. Use basic hand tools to perform service and repair operations in the lab
3. Use the row unit test stand to test and adjust metering units
4. Test monitors, controllers and guidance systems used on today's planters
5. Set and adjust planting and seeding equipment for peak performance

B. GENERAL EDUCATION LEARNING OUTCOMES:
GELO #3: Critical Thinking & Problem Solving
Outcomes:

1. Collect, identify, interpret and analyze data.
2. Synthesize information to arrive at reasoned solutions to problems.
3. Evaluate ideas presented in writing, medial, speech, or artistic presentations.

4. Evaluate the validity of arguments, alternatives, data, outcomes, and/or impacts of actions.
5. Acquire and integrate knowledge and construct relationships across disciplines.

IV. CONTENT/TOPICAL OUTLINE

A. Planter/drill basic function
B. Open seed trench
C. Metering
D. Seed placement
E. Covering seed
F. Firming
G. Planter attachments
H. Monitoring/guidance
I. Safety

V. INSTRUCTIONAL MATERIALS

Required Text(s): FOS Planting Optional: John Deere Publications
FOS Mowing and Spraying Equipment
FMO Crop Chemicals

Outside Reading/Research Required:

VI. METHODS OF PRESENTATION / INSTRUCTION

A. Methods of presentation typically include a combination of the following:
1. Laboratory activities will provide "hands on" experience related to material covered in the lecture.

VII. METHODS OF EVALUATION

A. Methods of evaluation typically include a combination of the following:
1. Notebook (IF REQUIRED)
2. Quizzes
3. Tests
4. Lab grades
5. Attendance/class conduct

Letter grades based on the standard SCC Grade Policy.

VIII. SPECIFIC COURSE REQUIREMENTS

A. Student must:
1. Complete all tests, projects, assignments, and notebook (if required).
2. Must earn a final grade of 70% (2.0) or higher.

B. Attendance:
1. Attendance is required for successful completion of this course.
2. This is an Engaged Learning course and students are expected to complete pre-class preparation assignments/homework and attend sessions for class, lab, including assignments missed due to absence.
3. Each instructor will inform students by means of a Syllabus and Course Information Document of attendance requirements at the first class meeting.

4. It is expected that students will be on time and present for all scheduled class / lab times unless PRIOR arrangements have been made with the instructor.
5. Missed class or lab sessions, regardless of cause, reduces the opportunity for learning and may affect student achievement of course learning outcomes and the student's grades.
6. Students are responsible for all content missed, regardless of the reason for the absence.
7. Students must, whenever possible, notify the instructor if unable to attend any class/lab session.
8. Emergency absences will be considered on an individual basis to determine if learning activities can reasonably be rescheduled during the current session.

C. Participation:

1. For every hour of classroom learning students are expected to perform two hours of related studies as homework or hands-on / simulated/on-line activities outside the classroom.
2. Students are expected to be responsible for meeting scheduled class/lab/ homework & assigned due dates unless prior arrangements have been made with the instructor 24 hours before the due date.
3. Students are expected to complete all exams, quizzes, lab activities and assignments / homework at the scheduled times unless PRIOR arrangements have been made with the instructor before the due date and time.
4. When reasonably possible, and only when prior arrangements have been made, students may ask the instructor to have a test or exam rescheduled prior to 24 hours before the activities scheduled date and time unscheduled quizzes may be given at any time and may not be repeated or taken at a later time, unless approved by the instructor.
5. Exceptions due to emergency absences will be considered on an individual basis.

D. Program shop safety rules will be followed. Please see the course outline for any additional safety rules established by the instructor.

E. Perform necessary tool room duties.