

**SOUTHEAST COMMUNITY COLLEGE
TRANSPORTATION OCCUPATIONS
DIESEL –AG EQUIPMENT SERVICE TECH
COURSE SYLLABUS**

July 1, 2019

[Syllabus Statements](#)

I. CATALOG DESCRIPTION

Course Number: AGST2430
Course Title: Spraying Equipment, Precision Guidance & Control Systems
Prerequisite(s): AGST1220, AGST1240, AGST1260

Catalog Description: Spraying equipment safety, theory, design principles of operation, set-up, operation, calibration, troubleshooting and repair is included. Precision guidance and control systems are included.

Credit Hour: 2.0
Class Hours: 15
Lab Hours: 45
Total Contact Hours: 60

II. COURSE OBJECTIVES: *Course will:*

- A. Describe the basic operation of the spraying system.
- B. Identify the operator and technician safety notices, warnings and procedures.
- C. Locate the main parts of the sprayer to include the application components.
- D. Show how to perform a pre-delivery inspection.
- E. Show how to perform basic diagnostics using EST and CNH Dealer Portal procedures.
- F. Define the major differences between Conventional and Blended Pulse technologies.
- G. Describe safety procedures related to the Hazard Communication and Globally Harmonized Systems as well as specific program rules for tool and equipment use.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES

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

- 1. Identify the different parts of a sprayer
- 2. Locate, read and comprehend Technical information
- 3. Explain how GPS works and how it relates to today's farming operations
- 4. Explain the difference between Pulse Width Modulated spraying and conventional spraying
- 5. Safety procedures related to the Hazard Communication and Globally Harmonized Systems as well as specific program rules for tool and equipment use

B. GENERAL EDUCATION LEARNING OUTCOMES:

GELO #3: Critical Thinking and 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. Sprayer component identification/location
- B. Sprayer set-up
- C. Sprayer maintenance
- D. Sprayer calibration
- E. Guidance and control systems

V. INSTRUCTIONAL MATERIALS

Required Text(s): John Deere FOS Mowers & Sprayers (ISBN 0-86691-179-0)

Tools: See current required tool list.

VI. METHODS OF PRESENTATION / INSTRUCTION

A. Methods of presentation typically include a combination of the following:

1. Lecture
2. Small and large group discussion
3. Video presentation
4. Transparencies
5. Demonstrations
6. Project boards
7. Flip charts
8. Handouts
9. Observations
10. Assigned lab projects
11. Field trips

VII. METHODS OF EVALUATION

A. Methods of evaluation typically include a combination of the following:

1. Quizzes
2. Tests
3. Lab grades
4. Class conduct

Letter grades will be based on the SCC Standard Grade Scale Policy. **Note:** See course information document for specific details on how the course grades will be calculated.

VIII. SPECIFIC COURSE REQUIREMENTS

A. Students must:

1. Complete all tests, projects, assignments, and notebook (if required).
2. Earn a final grade of 70% (2.0) or higher.

B. Attendance:

1. 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.
2. Each instructor will inform students by means of a Syllabus and Course Information Document of attendance requirements at the first class meeting.
3. 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.
4. 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.
5. Students are responsible for all content missed, regardless of the reason for the absence.
6. Students must, whenever possible, notify the instructor if unable to attend any class / lab session.
7. 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 and 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 reasonable / 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.
5. Unscheduled quizzes may be given at any time and may not be repeated or taken at a later time, unless approved by the instructor.
6. Exceptions due to emergency absences will be considered on an individual basis.

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