SOUTHEAST COMMUNITY COLLEGE
ADVANCED TECHNOLOGY & SKILLED TRADES DIVISION
JOHN DEERE TECH
COURSE SYLLABUS
September 10, 2025

I. CATALOG DESCRIPTION

Course Number: JDAT1111
Course Title John Deere Orientation & Fundamentals
Prerequisite(s): None

Catalog Description: This course provides an introduction to the John Deere product line, manuals, time management, engine classifications, and serial numbers. Warranty, shop tickets, and John Deere Service department policy and procedures are explained as well as an introduction to John Deere Service ADVISOR, and Parts ADVISOR. The proper use and care of power and hand tools, Encompasses micrometers, dial indicators, torque wrenches, twist drills, tap, dies, screw extractors, thread restoration, tube fittings, and fasteners. This course also deals with basic shop operations. It includes, basic hydraulic theory, and basic powertrain theory. Safety, product labels, and material safety data sheets, and handling of hazardous materials will be explained. Safe forklift operation will be covered.

Credit Hours: 6
Classroom Hours: 38
Lab Hours: 158
Total Contact Hours: 196

II. COURSE OBJECTIVES: *Course will:*

A. Cover program expectations.
B. Cover the John Deere product line, engine and product serial numbers.
C. Cover John Deere publications.
D. Cover dealership operation, shop tickets, and time management.
E. Cover Dealer Path/Service Advisor.
F. Cover safe shop practices.
G. Cover fork lift operation and certification.
H. Cover employee Right to Know and Safety Data Sheets.
I. Cover the correct uses of basic shop tools.
J. Cover micrometers and precision measuring tools.
K. Cover identification of fasteners and fittings.
L. Cover the importance of torque and torque wrenches.
M. Cover drill bits, tap and dies, and rethreading.
N. Explain safety precautions for hydraulic, and powertrain systems.
O. Explain basic principles for hydraulic, and powertrain systems.
P. Explain basic operation of hydraulic, and powertrain systems.
Q. Explain basic components hydraulic, and powertrain systems.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES

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

1. Demonstrate an understanding of the specific program requirements.
2. Exhibit skills on various service publications used by John Deere dealerships today.
3. Explain the various John Deere factories, where they are located and what they manufacture.
4. Explain the various John Deere tractor models by age and number designation.
5. Demonstrate finding the location of serial number plates.
6. How to explain serial number meanings.
7. Explain engine classification by product.
8. Demonstrate the importance of time management.
9. Explain John Deere dealership service department policies and procedures.
10. Demonstrate skills using John Deere Service Advisor
11. Demonstrate skills using John Deere Dealer Path.
12. Demonstrate an understanding of the dangers present from rotating equipment if not correctly operated and eye protection used.
13. Demonstrate correct operation of tools and processes described.
14. Demonstrate skills necessary in routine tasks utilized by John Deere technicians with hand tools.
15. Demonstrate skills necessary in routine tasks utilized by John Deere technicians with power tools.
16. Demonstrate Procedure to Sharpen Drill Bit.
17. Explain and demonstrate Learn the Theory and correct operation of all measuring instruments used.
18. Successfully measure using the English and Metric micrometers.
19. Exhibit Skills in correct identification of fasteners.
20. Exhibit Skills in correct identification of fittings.
21. Construct a hydraulic SVC (Selective Control Valve) adjusting plate.
22. Practice safe work habits when working with hydraulic, and powertrain systems.
23. Understand the hazards of working with hydraulic, and powertrain systems.
24. Understand the basic principles of the hydraulic, and powertrain systems
25. Understand and use Pascal's law, and Gear ratio calculations.
26. Understand the basic operation of hydraulic, and powertrain systems.
27. Explain the different types of hydraulic, and powertrain systems.
28. Understand basic symbols of hydraulic, and powertrain system components.
29. Read and explain basic schematics for hydraulic, and powertrain systems.
30. Understand and explain basic power flow of, hydraulic and powertrain systems.

B. GENERAL EDUCATION LEARNING OUTCOME:

GELO #3: Critical Thinking & Problem Solving

1. Collect, identify, interpret and analyze data.
2. Synthesize information to arrive at reasoned solutions to problems.
3. Evaluate the validity of arguments, alternatives, data, outcomes, and/or impacts of actions.
4. Acquire and integrate knowledge and construct relationships across disciplines.

IV. CONTENT/TOPICAL OUTLINE

A. Program rules and requirements
B. John Deere Dealership Operation
C. Product lines and manufacturing facilities

D. Serial numbers
E. Manuals and time management
F. Service Advisor
G. Dealer Path
H. Shop safety
I. Tool nomenclature and use
J. Precision measuring
K. Fasteners and fittings
L. Hydraulics safety
M. Hydraulics – how it works
N. Hydraulic symbols
O. Hydraulic valves
P. Hydraulic pumps
Q. Powertrains – how they work

V. INSTRUCTIONAL MATERIALS

Required text(s): John Deere Technical Manuals – as made available from classroom library.
Coaching the Forklift Operator Book – Purchased in book store.
John Deere Fundamentals of Service Hydraulics
John Deere Fundamentals of Service Power Trains

Other material(s): Required tool set
Safety glasses (regulation Z87)
Leather boots
John Deere uniform
Colored pencils
Notebook
Writing instruments
RACF identification and password

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 presentations
4. Demonstrations
5. Project boards
6. Flip charts
7. Handouts
8. Observations
9. Assigned lab projects
10. Field trips

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 Behavior
6. Presentations
7. Demonstrations

Grading will follow the SCC Standard Grade Scale Policy. See **Course Information Document** for specific details on how the course grades are calculated.

VIII. SPECIFIC COURSE REQUIREMENTS:

- **A.** Students must complete all tests, projects, assignments, and notebook (if required).
- **B.** Students must earn a final grade of 70% (2.0) or higher.
- **C.** Program safety rules will be followed. See the **Course Information Document** for any additional safety rules established by the instructor.
- **D.** Safety belts will be worn at all times, on or in any motorized vehicle, if equipped.
- **E.** Attendance and participation. See **Course Information Document** for attendance and participation policy.