Course Information Form (CIF)

Course Code: DPE 153

Course Title: Service Department Operations

Department: Agricultural Technologies
PCS Code: 1.2 - Occupational/Technical Instruction
CIP Code: 47.0605
Repeatability: 0

Effective Date: Summer 2026

Credit Hours

Catalog Notation: 2-2-3
Credit Hour Distribution:

Lecture: 2	Lab: 2	Clinical: 0	**Total: 3**

General Course Information

Catalog Description

Introduces students to the foundational skills required in the heavy-duty diesel and transportation repair industry. Hands-on experience with basic shop tools, measuring instruments, fasteners, lifting devices, and electrical wiring techniques. Emphasis on safety, accuracy, and the professional use of shop tools and diagnostic equipment, preparing students for the workplace.

General Course Objectives

Upon successful completion of this course, students will be able to:

- Demonstrate proper shop safety, PPE, and OSHA-compliant procedures.
- Safely operate forklifts and lifting devices for material handling and vehicle movement.
- Identify and correctly use fasteners, threads, and torque specifications.
- Accurately measure components using micrometers, calipers, and other precision tools.
- Perform thread repair, tapping, and bolt extraction procedures.
- Properly crimp, solder, and repair electrical wiring connections.
- Use mechanical pullers, presses, and bearing tools correctly and safely.
- Identify and assemble common hydraulic fittings and hoses to specification.
- Demonstrate professionalism, teamwork, and shop organization.

Minimum Placement Levels

English	Reading	Math
Placement into ENG 098	Placement into CCS 098	Placement into MAT 059

Prerequisites

None

Methods of Evaluation

Students will be evaluated using online exams and quizzes, lab performance assessments, and a comprehensive final practical and written/online exam. Assessments will range between 10-16 assignments in the semester.

Instructional Materials and Additional Supplies

Students will need the required tool sets for the Diesel Power and Equipment program.

Course Content

General Learning Outcomes (GLOs)

- Technology: Students will demonstrate the ability to evaluate, select, and appropriately use current and emerging tools.

Course Segments and Student Learning Outcomes

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Tool Usage	1. Describe and demonstrate proper tool usage, including puller, bearing splitters, and tap and die.	4	4	0
Time Management	1. Describe and demonstrate what time management is, and how to use it in a service department.	3	3	0
Diagnostic Equipment	1. Describe and demonstrate proper diagnostic equipment usage. 2. Perform safe equipment install and accurate test readings.	4	4	0
Safety	1. Describe and demonstrate service department safety. 2. Obtain forklift safety certification.	4	4	0
Tooling Usage	1. Demonstrate seal and specific precision tooling usage and operation.	4	4	0
Mechanical Leverage Tooling	1. Demonstrate usage of bearing pullers and hydraulic tooling.	2	2	0
Hardware and Repairs	1. Describe and demonstrate methods of using taps/dies, drilling, hole repair, and heli-coil installation.	4	4	0
Wiring	1. Understand and demonstrate wire tooling and wire repair techniques.	4	4	0
Hydraulic Introduction Tooling	1. Understand and demonstrate hose repair, inspection, and proper installation methods.	1	1	0

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
30	30	0