Course Information Form (CIF)

Course Code: DPE 135

Course Title: Introduction to Mobile Hydraulics

Department: Agricultural Technologies
PCS Code: 1.2 - Occupational/Technical Instruction
CIP Code: 47.0302
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

Introduction to mobile hydraulics systems, including open, closed, and PFC types.

General Course Objectives

Introduces the student to basic mobile hydraulics, open center, closed center, and PFC systems.

Minimum Placement Levels

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

Prerequisites

None

Methods of Evaluation

Methods of evaluation to include at least 7 chapter tests, 2 unit exams, 10 lab practicals, and 1 final exam.

Instructional Materials and Additional Supplies

Hydraulic Systems for Mobile Equipment, 978-1-63776-126-7

Course Content

General Learning Outcomes (GLOs)

- Critical Thinking and Information Literacy: Students will demonstrate the ability to evaluate perspectives, evidence, and implications, and to locate, assess, and use information effectively.
- Reasoning and Inquiry: Students will demonstrate the ability to solve problems using deductive reasoning and logic, quantitative reasoning, or the scientific method.
- 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
Hydraulic Theory	1. Describe and demonstrate the fundamentals of basic hydraulic theory as applied to mobile machinery.	2	2	0
Hydraulic Fluids	1. Identify and demonstrate the function of fluid as applied to hydraulic systems.	2	2	0
Fixed Displacement Pumps	1. Describe and demonstrate the function of fixed displacement pumps.	5	5	0
Variable Displacement Pumps	1. Describe and demonstrate the function of variable displacement pumps.	5	5	0
Directional Control Valves	1. Describe and demonstrate the function of directional control valves.	5	5	0
Linear Actuators	1. Describe and demonstrate the function and repair of linear actuators.	3	3	0
Auxiliary Valves	1. Describe and demonstrate the function and repair of auxiliary valves.	3	3	0
Fluid Conductors	1. Describe and identify the types of fluid conductors used.	3	3	0
Rotary Actuators	1. Describe and demonstrate the function and repair of rotary actuators.	2	2	0

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
30	30	0