Alexandria Technical and Community College

DIES 1635: Hydraulic Fundamentals

A. COURSE DESCRIPTION

Credits: 3
Lecture Hours/Week: 1
Lab Hours/Week: 4
OJT Hours/Week: *.*

Prerequisites:
DIES 1630 - Diesel Industry Fundamentals AND DIES 1632 - DC Electricity (Number of Years Valid: 5)
AND DIES 1636 - Power Trains I (Number of Years Valid: 5)

Corequisites: None
MnTC Goals: None

This course covers the basic design and theory of fluid hydraulics. Students learn to understand function,
operation, maintenance, diagnosis, and repair procedures on hydraulic components. This course is an
introduction to advanced hydraulics.

B. COURSE EFFECTIVE DATES: 06/08/2022 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Understand hydraulic theory.
2. Identify hydraulic components.
3. Demonstrate hydraulic component knowledge.
4. Interpret hydraulic schematics.
5. Identify hydraulic fittings.
6. Display knowledge of safe work area.

D. LEARNING OUTCOMES (General)

1. The learner will exhibit knowledge of hydraulic system theory.
2. The learner will disassemble, inspect, and reassemble hydraulic components.
3. The learner will identify hydraulic system sub-components.
4. The learner will recognize proper hydraulic system maintenance practices.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted