Alexandria Technical and Community College

FLPO 1501: Fluid Power Fundamentals

A. COURSE DESCRIPTION

Credits: 2
Lecture Hours/Week: 2
Lab Hours/Week: *.*
OJT Hours/Week: *.*
Prerequisites: None
Corequisites: None
MnTC Goals: None

This course provides the learner with knowledge and the working skills needed in the areas of fundamentals of fluid power, physics principles pertaining to fluid power, various differences in hydraulics and pneumatics, and characteristics of liquids and gases. This course focuses on how and why the fluid power industry was started. Students learn the natural laws and principles that govern fluid power; why fluid power components and systems function as they do; what common hydraulic components do and how they operate; and how components work together in systems to accomplish work. Students also learn how to calculate and predict system and component performance and how to properly size fluid power components and systems.

B. COURSE EFFECTIVE DATES: 12/17/1997 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Describe advantages of fluid power.
2. Recognize hydraulic conduits and fittings.
3. Determine basic principles of hydraulics.
5. Determine actuator applications.
6. Recognize filtration requirements.

D. LEARNING OUTCOMES (General)

1. The learner will demonstrate understanding of mechanical energy principles.
2. The learner will demonstrate understanding of fluid power principles.

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

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted