Course Title: Basic Hydraulic Basic and Theory
Prefix and Course Number: FLPT 114

Course Learning Outcomes:
By the end of this course, a student should be able to:

- read and interpret hydraulic schematics for all major components
- safely install/operate a variety of hydraulic components

Course Outline

I. Hydraulic Components
   A. Oil Flow Measurements
   B. Oil Pressure
   C. Circuits
   D. Actuators
   E. Valves

II. Pumps
   A. Identification
   B. Operation
   C. Application

III. Pressure Controls
   A. Identification
   B. Operation
   C. Application

IV. Directional Controls
   A. Identification
   B. Operation
   C. Application

V. Volume Controls
   A. Identification
   B. Operation
   C. Application

VI. Actuators
   A. Identification
   B. Operation
   C. Application

VII. Oil Reservoir and Fluid Conditioners
    A. Identification
    B. Operation
    C. Application

VIII. Fluid Lines and Fittings
     A. Applications
     B. Installation

IX. Hydraulic Fluids and Seals
    A. Selection

X. Installation of Hydraulic Accessories
   A. Pressure Gauges
   B. Accumulators
   C. Intensifiers
D. Industrial Shock Absorbers