

# Hydraulics Level I 24 hours

Hydraulics I, will take you through basic hydraulics to include the laws of physics, symbols, and simple circuits. This course includes hands-on training using Vicker's hydraulics trainers and the disassembling, inspection, and re-assembling of pumps. Actuators, pressure control valves, and directional control valves are also presented. Course topics include:

- Introductions
- Physical Laws
- Symbols & Circuits
- Pumps
- Pump Lab
- Actuators
- Actuator Lab
- Pressure Controls
- Pressure Control Lab
- Directional Controls
- Directional Control Labs
- Flow Control & Lab

### Course Materials

Fluid Power by Vickers

### **Course Logistics**

Number of Hours: 24

Location: To be taught on-site or at the college

Number of Students: 8

Website: www.maycc.kctcs.edu

# Hydraulics Level II 24 hours

Hydraulics II, a continuation of Hydraulics I, is an advanced course with advanced training on pressure control valves, Servo valves, fluids, and more hands-on training. These courses are designed for the maintenance person and front line supervisors. Both courses include a free textbook that will be a constant reference for the maintenance department. Course topics include:

- Introduction
- Review of Basic Symbols
- Pressure Compensated Pumps
- Piston Pumps and Lab
- Directional Control Valves
- Pressure Control Valves
- Pressure Control Valve Lab
- Deceleration Control Valve and Lab
- Flow Control Valve
- Contamination Control
- Servo Valves
- Proportional Valves
- Accumulators
- Fluids
- Lab Final and Written Exam

### **Course Materials**

Fluid Power by Vickers

### **Course Logistics**

Number of Hours: 24

Location: To be taught on-site or at the college

Number of Students: 8

Credits: Students completing Level I and Level II will receive 2-3 BIT credits.

Course Materials: same text as level IInstructor travel may also be included

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