Course Objectives/Course Outline
Spokane Community College

Course Title: Hydraulic Manifold Design
Prefix and Course Number: FLPT 269

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

- lay out and design a simple manifold
- use available templates or make special valve port and hold down bolt templates for accurate drawing layout
- identify all valve mounting styles, port types, and special components used in manifolds
- size manifold ports to match system flow requirements

Course Outline

I. Manifold Design
   A. Advantages of Manifolds
   B. Basic Hydraulic Knowledge
   C. Hydraulic Components
   D. Mechanical Drawings
   E. Shop Equipment
   F. Metals

II. Types of Manifolds
   A. Subplate-Single Valve
   B. Standard Valve Manifold
   C. Custom Designed Manifold

III. Manifold Specifications
   A. Hydraulic Schematic
   B. Location
   C. Ports
   D. Valves

IV. Manifold Designs and Sketches
   A. Sketching Top Face
   B. Component Parts
   C. Common Internal Oil Lines
   D. Side Views
   E. Layout of Top Face
   F. Layout of Side View
   G. Layout of End View
   H. Dimension and Callouts