Course Objectives/Course Outline
Spokane Community College

Course Title: Hydraulics/Pneumatics
Prefix and Course Number: CAD 139

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

- understand uses for various hydraulic and pneumatic components
- identify hydraulic and pneumatic components
- use various hydraulic and pneumatic formulas
- design basic hydraulic and pneumatic circuits

Course Outline:

I. Fluid Power Principles
   A. History
   B. Principles
   C. Fluids
   D. Leverage
   E. Fluid Flow

II. Components
   A. Cylinders
   B. Valves
   C. Pumps
   D. Other Components

III. Design Considerations
   A. Designing with Cylinders
   B. Control Systems
      1. Directional Controls
      2. Pressure Controls
      3. Speed Controls
   C. Circuits
   D. Calculations and Formulas

IV. Practical Applications