Course Objectives/Course Outline
Spokane Community College

Course Title: Applied Hydraulics/Pneumatics
Prefix and Course Number: FLPT 136

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

- Introduction to the basics of fluid power and its application to various programs.

Course Outline

I. Introduction to Pneumatics
   A. History
   B. Uses of Compressed Air
   C. Pneumatics in Industry
   D. Practical Applications/Tours

II. Compressed Air
   A. Sources of Compressed Air
   B. Energy Conversions (Mechanical IHP to SCFM air)
   C. Schematic Symbols
   D. Steam vs. Compressed Air

III. Levers
   A. Simple Levers
   B. Computer Programs-Lever Types and Interactive Calculation of Forces
   C. Drawing Schematic Symbols
   D. Practical Applications/Industry Tours

IV. Pneumatics Applications
   A. Relationship Between Actuator Speed/Force and Mechanical Advantage
   B. Air To Stroke Calculations (compression ratios, piston area, and stroke)
   C. Practical Applications (Lego Products)
   D. Practical Applications (Industry Tours)