

Course Objectives/Course Outline
Spokane Community College

Course Title: Hydraulic Systems

Prefix and Course Number: FLPT 131

Course Learning Outcomes:

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

- identify any existing machine hydraulic system as being the same as one for the five basic systems studied.
- select and apply any of the five basic systems to power a machine using efficiency and cost as controlling factors
- calculate oil flow, oil pressure, and HP requirements for sizing components in the basic hydraulic system

Course Outline:

- I. Series System
 - A. Identification of Components
 - B. Oil Flow Paths
 - C. Operation
 - D. Applications
- II. Parallel Systems
 - A. Identification of Components
 - B. Oil Flow Paths
 - C. Operation
 - D. Applications
- III. High-Low (Press) Systems
 - A. Identification of Components
 - B. Oil Flow Paths
 - C. Operation
 - D. Applications
- IV. Regenerative System
 - A. Identification of Components
 - B. Oil Flow Paths
 - C. Operation
 - D. Applications
- V. Hydrostatic Drive
 - A. Identification of Components
 - B. Loop Oil Flow Paths
 - C. Pressure Control
 - D. Applications
- VI. Vocabulary