



Randy Mayeda  
EPG LAB

ENGINE LAB

# CUSTOMER FUNDAMENTAL HYDRAULICS

## PETERSON UNIVERSITY SESSIONS:

Course fee \$1500\*  
Three days  
24 instructional hours  
8:00 a.m. - 4:00 p.m.

## WHAT TO BRING TO CLASS:

- Safety Glasses
- Work Boots
- Gloves
- Laptop
  - SIS2.0 if possible

This course will give you confidence to explain and identify Pascals law. Introduce you to the function of fixed and variable displacement pumps and teach you hydraulic control systems to include manual, pilot, and electrohydraulic. You will also learn the rules of series and parallel hydraulic circuits, directional control valves, pressure control valves, flow control valves, and accumulators. You will gain experience reading hydraulic schematics.

## COURSE OUTCOMES:

- Understand and apply Pascal's law to basic hydraulic circuits (serial and parallel)
- Identify and understand the common types of hydraulic pumps used in Caterpillar® product
- Identify hydraulic components using hydraulic schematics and on a machine
- Understand the system operation found in typical hydraulic directional control valves (different center options, manual control systems, pilot control systems, and electrohydraulic control systems)
- Identify and understand the function of the various pressure control valve types found in common machine hydraulic systems. (Pressure reducing valves, reliefs valves, compensator valves, and load sense circuits)
- Describe the function and necessity of flow control valves in a hydraulic system
- Identify and understand the function of hydraulic accumulators in various systems

Contact us or visit [petersonholding.com/university/classes](https://petersonholding.com/university/classes) to learn more.



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*\*Course fee as of January 1, 2024 and is subject to change at anytime without further notice.*

