
SECTION HEADING

MECH 1142: Mechanical Systems II

Description

Credits

3

Prerequisite

None

Corequisite

None

Topics to be Covered

1. Pascal's Law
2. Bernoulli's Principle and Bernoulli's Theorem
3. Energy transition through fluid
4. Torque, Pressure and Velocity
5. Pressure in series/parallel circuits
6. Force, Work, and Power
7. Flow
8. Pressure drop
9. Directional, flow and pressure control devices
10. Hydraulic pumps, motors, and cylinders

Learning Outcomes

1. Address safety issues related to hydraulics systems
2. Identify different components of a hydraulic system.
3. Describe hydraulic principles.
4. Discuss Pascal's Law, Bernoulli's Principle and Bernoulli's Theorem.
5. Apply calculations and equations to basic hydraulics.
6. Utilize hydraulic symbols and schematics.

Credit Details

Lecture: 3

Lab: 0

OJT: 0

MnTC Goal Area(s): None