



# Statics

CVEN 311

# Definitions and Applications

- ▶ Statics: no relative motion between adjacent fluid layers.
  - ▶ Shear stress is zero
  - ▶ Only pressure can be acting on fluid surfaces
- ▶ Gravity force acts on the fluid (body force)
- ▶ Applications:
  - ▶ Pressure variation within a reservoir
  - ▶ Forces on submerged surfaces
  - ▶ Tensile stress on pipe walls
  - ▶ Buoyant forces

# Motivation?

- ▣ What are the pressure forces behind the Hoover Dam?

