* CHAPTER 1
  + Fluid vs. Solid
    - Fluid: deforms under an applied shear stress but eventually fails.
    - Solid: deforms under an applied shear stress but continuously deforms, no fail
  + Fluid mechanics
    - Definition: the study of fluids and the forces exerted on them and on the boundary layer that it contacts
    - Statics: study of fluids at rest:
    - Dynamics: study of fluids in general motion
  + Incompressible vs compressible fluid/flow
    - Incompressible flow: flow with a constant density
    - Compressible flow: flow with a variable density
  + Specific weight vs Specific gravity
    - Specific weight: weight per unit volume
    - Specific gravity: the ratio of specific weight or density of fluid to that of water
  + Flow types:
    - Subsonic: M < 1
    - Transonic: 0.8 ≤ M ≤ 1.2
    - Sonic: M = 1
    - Supersonic: M > 1
    - Hypersonic: M ≥ 6
  + Inviscid Flow vs. Viscous Flow
    - Inviscid flow: flow where there are no viscous forces present
    - Viscous Flow: flow where there are viscous forces present (FRICTION IS IMPORTANT)
      * The friction factor‼‼
  + Newtonian Fluid vs. Non-Newtonian Fluid
    - Newtonian fluid: a fluid where the velocity gradient is linear with the shear stress
    - Non-Newtonian Fluid: a fluid where the velocity gradient is nonlinear with the shear stress
  + Steady Flow vs. Unsteady Flow
    - Steady Flow: flow where the physical parameters do NOT depend on time
    - Unsteady Flow: flow where the physical parameters DO depend on time
  + Laminar vs Turbulent Flow
    - Laminar Flow: Flow with steady flow characteristics and no appreciable mass diffusion normal to the flow direction.
    - Turbulent: Flow with unsteady flow characteristics and appreciable mass diffusion normal to the flow direction.
  + D’Alembert’s Paradox
    - A paradox where the was a drag force present and there was an assumption of inviscid flow.
* CHAPTER 2
  + Absolute Pressure
    - The sum of the guage pressure and the atmospheric pressure
  + Guage Pressure
    - The difference of the absolute pressure and atmospheric pressure
  + Buoyant force
    - Upward force that a fluid excerts on a submerged body. It is equal to the weight of the fluid displaced by the submerged body.
  + Vaccum Pressure
    - A –guage pressure difference. Absolute pressure < atmospheric pressure.
  + Manometer vs Barometer
  + Center of Pressure
    - The location of the hydrostatic force acting on a submerged body. It is always BELOW the centroid. (y directionally speaking). As the depth increases the center of pressure gets closer to the centroid.