FST 204 Fluid Mechanics and Transport Phenomena (2 Units)

Fluid and its properties. Newtonian and Non-Newtonian fluids including plastics, pseudo plastics, Bingham plastic and rheopetic fluids. Boundary layer effect. Visco-elastic properties of fluids. Newtonian equation of fluid. Shear stress in static fluid. Fluid flow: compressible and incompressible flows, turbulent and laminar flows, uniform and non-uniform flows. Equations of fluid flow: continuity, energy and Bernoulli's equation. Flow in pipes in series and parallel connections.