

**Faculty of Engineering & Technology**

**Fluid Mechanics**

**Information :**

**Course Code :** MEC241

**Level :** Undergraduate

**Course Hours :** 3.00- Hours

**Department :** Mechatronics Engineering

**Description :**

Basic properties of fluids and fundamental concepts. Statics of fluids; pressure, pressure measurement devices, hydrostatic forces and buoyancy. Fluid kinematics. Basic equations of fluid flow; conservation of mass, fluid momentum and energy, Bernoulli's equation, energy equation and applications. Internal flow; laminar and turbulent flow in ducts and pipes and their applications. External flow; lift and drag forces. Basics of dimensional analysis and dynamic similarity.