

**Faculty of Engineering & Technology****Fluid Mechanics****Information :****Course Code :** MEC241**Level :** Undergraduate**Course Hours :** 3.00- Hours**Department :** Structural Engineering & Construction Management**Instructor Information :**

Title	Name	Office hours
Lecturer	Zakaria Mostafa Abdo Salim Marouf	2
Teaching Assistant	Christopher Nashaat Najib Benjamin	

**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.