

## 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	1
Assistant Lecturer	Mohamed Ahmed Reda Abas Ahmed	
Teaching Assistant	Mahmoud Mohamed Khalaf Ahmed	

#### 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.