

## Faculty of Engineering & Technology

## **Dynamics of Rigid Bodies (Mechanics3)**

Information:

Course Code: MEC 221 Level: Undergraduate Course Hours: 3.00- Hours

**Department :** Department of Structural Engineering & Construction Management

Instructor Information :		
Title	Name	Office hours
Lecturer	Ahmed Mohamed Abdel Moniem Mohamed Soliman	
Teaching Assistant	Nada Mamdouh Hamam Mohamed Elshenawy	

## **Description:**

Types of planar motion of rigid body (R.B.), Angular velocity and velocity relation, Angular acceleration and acceleration relation, Equations of General planar motion of a R.B., Translational motion, Motion about a fixed axis, and General motion including friction, Principle of work and kinetic energy, Conservative forces and principle of conservation of mechanical energy, Linear and angular impulse, Principles of impulse and momentum, Impulsive forces, Inelastic and eccentric impact, Free undamped vibrations of R.B., Damped free vibrations, Forced damped and undamped vibrations of R.B.