

## Faculty of Engineering & Technology

## Dynamics of rigid bodies

Information:

Course Code: MEC261 Level : Undergraduate Course Hours : 3.00- Hours

**Department:** Mechatronics Engineering

## Instructor Information: Title Name Office hours Lecturer Amr Mohamed Metwally Ismaiel 3 Teaching Assistant Donia Waheed Mohamed Abdelmonem Saleem

## **Description:**

Types of planar motion of rigid body; Kinematics of Rigid bodies: Translational, Rotational, and General Plane Motion Equations. Instantaneous center, Relative velocity and Relative acceleration. Kinetics of rigid bodies: Newtons laws and equations of motion. Principle of work and energy, Conservation of mechanical energy, Linear and angular impulse. Principle of impulse and momentum, Conservation of Momentum.