FUTURE UNIVERSITY IN EGYPT
جامعة المستقبل

Faculty of Engineering & Technology

Dynamics of Rigid Bodies

Information :

Course Code :	MEC260	**Level :**	Undergraduate	**Course Hours :**	2.00- Hours

Department : Structural Engineering & Construction Management

Instructor Information :

Title	Name	Office hours
Associate Professor	Hamada Galal Taha Mohamed Askar	4

Description :

Kinematics of Rigid bodies; 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. Instantaneous center, Relative velocity and Relative acceleration. Kinetics of rigid bodies; Newtons laws, friction and elastic forces, equations of motion. Principle of work and energy, Conservative forces and principle of conservation of mechanical energy, Linear and angular impulse, Principles of impulse and momentum, Impulsive forces, impact, Introduction to free and forces vibrations.