

MIME 3101	Applied Mechanics II	3 Credit Hours
Prerequisites:	MIME 2101	
Goal	To provide the student with the basic knowledge that underlines the dynamics aspects of applied mechanics.	
Objectives	Outcomes	
<p>This course should enable the student to:</p> <ol style="list-style-type: none"> 1. Understand the laws and the principles that govern dynamics. 2. Perceive the basic concept in the field of this subject. 3. Realize the essential principles of conservation of momentum and energy. 4. Model and analyze dynamics engineering problems. 5. lay the ground for various courses in engineering . 	<p>A student who satisfactorily complete the course should be able to:</p> <ol style="list-style-type: none"> 1. Treat analytically a problem related to kinetic and kinematics pf particles. 2. Deal with situations involving various type of motions., linear , angular and oscillatory motions and their combinations 3. Distinguish between absolute and relative motion with reference to both translating and rotating axes. 4. Employ effectively the basic laws of conservation of energy, linear momentum, and angular momentum with full realization of their limitation in various practical situations. 5. Apply effectively Newton's three laws of motion. 6. Deal with elastic systems and realizing the conditions for vibratory and simple harmonic motion 7. Extend the analytical techniques of kinetics and kinematics of particles to system of particles and rigid bodies. 8. Perform experiments on kinematics and kinetics of particles and rigid bodies. 	