



AL IMAM MOHAMMAD IBN SAUD ISLAMIC UNIVERSITY
COLLEGE OF ENGINEERING
Department of Mechanical Engineering

Course Information	
Course Code and Name:	ME 333- Mechanical Vibrations
Credit Hours:	3 (3 Lecture + 1 Tutorial)
Prerequisites:	GE 202 Dynamics

Course Description
Theory of single and multi-degree-of-freedom systems with an introduction to continuous systems. Determination of equations of motion, including natural frequency for free vibration and amplitude of forced vibration. Design of discrete and continuous systems for transient and harmonic excitations.

Textbook			
Title	Mechanical Vibrations		
Authors	Singiresu S.Rao		
Publisher	Pearson	Year and Edition	2010

Course Contents
Fundamentals of Vibration: Preliminaries and Introduction to Mechanical Vibrations
System of 1 Degree of Freedom: Free Vibrations of Undamped Systems
System of 1 Degree of Freedom: Free Vibrations of Damped Systems
Forced Vibration of Single Degree of Freedom Systems
Multiple Degree of Freedom Systems

Academic Coordinator	Signature
Dr. Khalil Hajlaoui	

Official Stamp

