The University of Jordan School of Engineering



Department	Department Course Name		Semester
Mechanical Engineering	Dynamics and Vibration Lab	0904314	

2005 Course Catalog Description

Static & dynamic balancing, centrifugal force, simple & compound pendulum, bifilar suspension, mass spring system, damping coefficient and logarithmic decrement, center of percussion, Katter's reversible pendulum, torsional free vibrations, resonance response of a single degree of freedom system. Base excitation and vibration isolation.

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			Insti	ructors				
Name		T 91		Office	Office Hours		Lecture Time	
INA	ime	E-mail	Sec					
			Text	Books				
			kt book 1	1	Text book 2			
Title		Mechanical Vibrations		Laborate	Laboratory Manual			
Author(s)		Singgiresu S. Rao						
Publisher, Yea	ar, Edition	Addison-Wesley Publishing Company,						
		ISBN 0-201-52686-7, 5th Edition.						
	References							
Books								
Journals								
Internet								
links								
Prerequisites								
Prerequisites	by topic	-						
Prerequisites by course		Mechanical Vibration (0904411)						
Co-requisites by course		-						
Prerequisite for -		-						
Topics Covered								
Week		Topics			Chapter	in Text	Sections	

Week	Topics	Chapter in Text	Sections
1	Simple and Compound Pendulum		
2	Center Of Percussion, Reversible Pendulum		
3	Bifilar Suspension		
4	Centrifugal Force		
5	mass spring system		
6	Simple Spring – Mass Damper System		
7	Determination Of The Mass Moment Of Inertia Of A Single Rotor		
8	Midterm Examination		
9	Determination Of The Modulus Of Rigidity Of Shaft Material,		
10	Torsional Oscillation Of A Two – Rotors System		
11	Un-damped Vibration Of A Beam, Un-damped Vibration Absorber		
12	Static And Dynamic Balancing		`
13	Final Examination	· ·	`

One report for each experiment, which includes the following: Cover page (5%); Abstract (10%); Data observed (10%); Sample calculation (10%); Results and discussion (including applications) (20%); Uncertainty analysis (10%); Page numbering (5%); and Figures & Tables (5%). Correct language (10%); Page numbering (5%); and Figures & Tables (5%). Correct language (10%); Page numbering (5%); and Figures & Tables (5%). Correct language (10%); Page numbering (5%); and Figures & Tables (5%). Correct language (10%); Page numbering (5%); and Figures & Tables (5%). Correct language (10%); Page numbering (5%); and Figures & Tables (5%). Correct language (10%); Page numbering (5%); and Figures & Tables (5%). Correct language (10%); Page numbering (5%); and Figures & Tables (5%). Correct language (10%); Page numbering (5%); and Figures & Tables (5%). Correct language (10%); Page numbering (5%); and Figures & Tables (5%). Correct language (10%); Page numbering (5%); and Figures & Tables (5%). Correct language (10%); Page numbering (5%); and Figures & Tables (5%). Correct language (10%); Page numbering (5%); and Figures & Tables (5%). Correct language (10%); Page numbering (5%); and Figures & Tables (5%). Correct language (10%); Page numbering (5%); and Figures & Tables (5%). Correct language (10%); Page numbering (5%); and Figures & Tables (5%). Correct language (10%); Page numbering (5%); and Figures & Tables (5%). Correct language (10%); Page numbering (5%); and Figures & Tables (5%). Correct language (10%); Page numbering (5%); and Figures & Tables (5%). Correct language (10%); Page numbering (5%); and Figures & Tables (5%). Correct language (10%); Page numbering (5%); and Figures & Tables (5%). Correct language (10%); Page numbering (5%); and Figures & Tables (5%). Correct language (10%); Page numbering (5%); and Figures & Tables (5%). Page numbering (5%); and Figures & Tables (5%); and Figures & Tables (5%). Page numbering (5%); and Figures & Tables (5%). Page numbering (5%); and Figures & Tables (5%). Page numbering (Manning of Course	e Outcomes to ARE	Student Outco	mes			
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