The University of Jordan
School of Engineering

Department	Course Name	Course Number	Semester
Mechanical Engineering	Advanced Mechanical Vibration	0904710	

2005 Course Catalog Description

Instructors

Name	E-mail	Sec	Office Hours		Lecture Time	

Text Books

	Text book 1	Text book 2
Title	Elements of Vibration Analysis	Dynamics of Structures
Author(s)	L. Meirovitch	R. Clough
Publisher, Year, Edition	McGraw-Hill	McGraw-Hill

References

Books	
Journals	
Internet links	

Prerequisites

Prerequisites by topic	
Prerequisites by course	
Co-requisites by course	
Prerequisite for	

Topics Covered

Week	Topics	Chapter in Text	Sections
	Formulation of Equations of Motion		
	Multi-Degree-of-Freedom Systems		
	Exact Solution for Continuous Systems		
	Approximate Methods for Continuous Systems		
	Finite Element Formulation and System Identification		
	Nonlinear Systems and Stability		

Course Outcomes

1.
2.
3.
4.
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8.
9.

Evaluation

Assessment Tools	Expected Due Date	Weight

H.W. and Assignments		20%
First Exam		20%
Second Exam		20%
Final Exam		40%

Contribution of Course to Meet the Professional Components

Relationship to Mechanical Engineering Program Objectives (MEPOs)

MEPO1	MEPO2	MEPO3	MEPO4

Updated by ABET Committee, 2024