

University of Jordan

Faculty of Engineering and Technology

Mechanical Engineering Department

Course Plan

Course Title Advanced Mechanical Vibration

Course No. 904710

Credit Hours 3

Instructor

References 1) Elements of Vibration Analysis; by L. Meirovitch, McGraw-Hill.
2) Dynamics of Structures; by R. Clough, McGraw-Hill.

Course Content

- **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**

Grading

- **First Exam** **20 %**
- **Second Exam** **20 %**
- **Homework and Assignments** **20 %**
- **Final Exam** **40 %**

Best Wishes and Good Luck