

**UNIVERSITY OF JORDAN**  
**FACULTY OF ENGINEERING AND TECHNOLOGY**  
**MECHANICAL ENGINEERING DEPARTMENT**

**Finite Element Method (0944706)**

**INSTRUCTOR:**

Name:

Office hours:

**TEXTBOOK:** The Finite Element Method: A Practical Course

G. R. Liu and S. S. Quek

Published by: Butterworth-Heinemann.

**SUGGESTED REFERNCES:**

- Finite Element Analysis: From Concepts to Applications, David S. Burnett, Addison-Wesley Publishing Company.
- An Introduction to the Finite Element Method, J. N. Reddy, McGraw-Hill Book Company.
- A First Course in the Finite Element Method, Daryl L. Logan, PWS Publishing Company.
- Fundamentals of Finite Element Analysis, David V. Hutton, McGraw-Hill Book Company.

**COURSE CONTENT:**

Description	Book Chapter
Computational Modelling	Chapter (1)
Introduction to Mechanics for Solids and Structures	Chapter (2)
Fundamentals for Finite Element Method	Chapter (3)
FEM for Trusses	Chapter (4)
FEM for Beams	Chapter (5)
FEM for Frames	Chapter (6)
FEM for Two-Dimensional Solids	Chapter (7)
FEM for Plates and Shells	Chapter (8)
FEM for 3D Solids	Chapter (9)
Special Purpose Elements	Chapter (10)
Modelling Techniques	Chapter (11)
FEM for Heat Transfer Problems	Chapter (12)
Using ABAQUS	Chapter (13)

**ATTENDANCE:**

Attendance will be checked at the beginning of each lecture. University regulations will be followed.