University of Jordan
School of Engineering
Civil Engineering Department

Structures II (0901342)
Syllabus
Spring 2016/2017

Instructor:
Dr. Amer Alkloub (a.kloub@ju.edu.jo)

Office Hours: Sunday, Tuesday, and Thursday 2:00 – 3:00 pm

PREREQUISITE(S):
- Structures I (0901341)

TEXT BOOK:
- Structural Analysis, R.C. Hibbeler, Prentice Hall, 9th edition

REFERENCES:
- Introductory Structural Analysis – C.K. Wang and C.G. Salmon. Prentice-Hall, 1984.
- Intermediate Structural Analysis – C.K. Wang. International ed., McGraw-Hill, 1983 (other ed.).
- Matrix Structural Analysis – R.L. Sack. PWS-KENT Publishers, 1989

GRADING SYSTEM:
Mid Exam (40%) (Date of Exam: TBA)
Project (10%)
Final Exam (50%)

CONTENT:

Week	Topics	Chapter based on text book
1-2	Review of Basic Concepts in Structural Analysis and determination of elastic deflection	Chapters 2-6

3-4	Approximate Methods in Structural Analysis	Chapter 7
5-6-7	Analysis of Statically Indeterminate Structures by the Force Method	Chapter 10
8-9-10	Displacement Method of Analysis: Slope-Deflection Equations	Chapter 11
11-12-13	Displacement Method of Analysis: Moment Distribution	Chapter 12
14-15	Truss Analysis Using the Stiffness Method	Chapter 14
15	Students present their course projects	
16 Final exams week		

POLICIES:

- MAKE UP exam policy: for students who cannot attend regular exams due to serious illness, or family emergency (all with written proof approved from the University of Jordan regulations), a makeup exam may be arranged AFTER the regular exam. The instructor must be notified prior to the exam, and no exceptions will be made.
- You are NOT ALLOWED to use CELL PHONE. Close your phone before you get to class unless you are expecting an emergency call then please let your instructor know before class.
- If you have a course-related question, please see the instructor during office hours or set an appointment by email.
- All cheating in the course will be referred to the Office of the Dean of Students
- You are expected to arrive in class and be seated on time and not leave the classroom before the instructor dismisses class. If you will not be arriving on time or have to leave early then let the instructor know beforehand.
- Individuals engaged in any activity that disturbs the attention of the class will be asked to leave the classroom immediately.

LEARNING OUTCOMES

When this course has been completed the student should be able to

1. Use the approximate method of analysis in estimation of frame reactions due to lateral or gravity loads.
2. Understand and apply the force method of analysis to analyze beams, no sidesway frames, and sidesway frames.
3. Understand and apply the slope-deflection method of analysis to analyze beams, no sidesway frames, and sidesway frames.
4. Understand and apply the moment distribution method of analysis to analyze beams, no sidesway frames, and sidesway frames.
5. Understand and apply the stiffness method of analysis to analyze trusses.

ABET OUTCOMES:

- An ability to apply knowledge of mathematics, science and engineering.
- An ability to function on multi-disciplinary teams.
- And ability to identify, formulate and solve engineering problems.
- An ability to communicate effectively.
- The broad education necessary to understand the impact of engineering solutions in a global and societal context.
- Recognition of the need for, and an ability to engage in life-long learning.
- A knowledge of contemporary issues
- An ability to use the techniques, skills and modern engineering tools necessary for engineering practice.