

COURSE SYLLABUS

Course number and name	CE 421 Structural Analysis 2
Credits hours	3 Credit hours
Contact hours	3 Contact hours; 3 for lecture
Instructor name	Dr. Ali Eltom Hassaballa
Textbook	Hibbeler R.C.; “Structural Analysis”, Eight Edition., Prentice Hall, 2012.
Other supplemental materials	<ul style="list-style-type: none"> - AslamKassimali, Structural Analysis, 4th edition, CengageLearning, 2011 - Wang, C.K, Intermediate Structural Analysis, 7th Ed., Mc Graw Hill, 2008. - Journal of Structural Engineering - Digital library of Jazan university: - Lecture notes
Specific course information	
Catalog description	This course aims to analyze statically indeterminate structures by slope-deflection method and moment distribution method. provide introduction to matrix methods of structural analysis by using flexibility method and stiffness method, draw influence lines for statically indeterminate structures. Computer applications.
Prerequisite	215 EngC-3
Required / Elective	Elective
Specific goals for the course	
Course Learning Outcomes (CLO)	<p>By the end of this course, the student should be able to:</p> <ul style="list-style-type: none"> - Student will be able to understand indeterminate structure and methods of analysis. - Student will be able to analyze indeterminate beams and frames by slope deflection method . -Student will be able to analyze indeterminate beams and frames without and with side-sway by using moment distribution method. <p>Student will be able to calculate the deflection of trusses, beams and frames by using unit load method.</p> <ul style="list-style-type: none"> - Student will be able to solve matrix method and its application for computer-based analysis of structures. - Student will have the ability to draw influence lines for indeterminate beams.

