

Faculty of Engineering & Technology

Structural Mechanics 2

Information :

Course Code : SCM 314 **Level :** Undergraduate **Course Hours :** 3.00- Hours

Department : Department of Structural Engineering & Construction Management

Instructor Information :

Title	Name	Office hours
Professor	Bahaa sharaf ismail tork	16
Professor	Bahaa sharaf ismail tork	16
Professor	Bahaa sharaf ismail tork	16
Assistant Lecturer	Dina Yehia Zakaria Ewais	16
Assistant Lecturer	Dina Yehia Zakaria Ewais	16
Assistant Lecturer	Nada Mohamed Abd El Hamid Ali Mohamed	8
Assistant Lecturer	Dina Yehia Zakaria Ewais	16
Assistant Lecturer	Nada Mohamed Abd El Hamid Ali Mohamed	8

Area Of Study :

Calculate deflection for statically determinate structures
Analyze statically indeterminate structures using the force methods and the displacement methods.

Description :

Desemesterination of deformations: differential equation, method of virtual Work, Analysis of statically indeterminate structures: method of consistent deformations, method of moment distribution, Influence lines for statically indeterminate structures

Course outcomes :

a.Knowledge and Understanding: :

1 -	Define and understand the deformation of elastic bodies using double integration, conjugate beam and virtual work methods.
2 -	understand the behavior of statically indeterminate structures.
3 -	Identify methods of determination of determinacy the internal forces in different types of statically indeterminate structures.

b.Intellectual Skills: :

1 -	Evaluate the deformations of elastic bodies using double integration, conjugate beam and virtual work methods.
2 -	Analyze statically indeterminate structures using the force methods.
3 -	Analyze statically indeterminate structures using the displacement methods.

c. Professional and Practical Skills: :

1 -	Use different methods to calculate deformations of statically determinate structures.
2 -	Use different methods to calculate the internal forces of statically indeterminate structures.

d. General and Transferable Skills: :

1 -	Share ideas and communicate with others.
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Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Deflection by Virtual Work Method	12	9	3
General Method of Deformations	16	12	4
Three Moments Equation Method	12	9	3
Moment Distribution Method	16	12	4
Revision	4	3	1

Teaching And Learning Methodologies :

Class Lectures
Tutorials

Course Assessment :

Methods of assessment	Relative weight %	Week No	Assess What
Final exam	40.00		
First Mid Term Exam	25.00		
Performance	10.00		
Second Mid Term Exam	25.00		

Course Notes :

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Recommended books :

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Periodicals :

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Web Sites :

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