FUTURE UNIVERSITY IN EGYPT جامعة المستقبل

Faculty of Engineering & Technology

Structural Mechanics 3

Information :

Course Code :	SCM 411	**Level :**	Undergraduate	**Course Hours :**	3.00- Hours

Department : Department of Structural Engineering & Construction Management

Instructor Information :

Title	Name	Office hours
Professor	Eman Anwer Mohamed Salem Elshamy	8
Professor	Eman Anwer Mohamed Salem Elshamy	8
Assistant Lecturer	Youssef Ahmed Elsayed Kamaleldin Ahmed Awad	6
Teaching Assistant	Ahmed Taher Abdelhamed Mohamed Yousef	
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Area Of Study :

Upon successful completion of this course, the student should be able to:
- Understand the basic concepts and main principles
- Calculate the values of the essential terms

Regarding beams using slope deflection frames using slope deflection beams using stiffness method frames using stiffness method trusses using stiffness method grids using stiffness method

Description :

Matrix analysis of structures: flexibility method, stiffness method, Applications on all types of plane and space skeletal structures

Course outcomes :

a.Knowledge and Understanding: :	
1 -	a1- Define the main terms of beams using slope deflection
2 -	a2- Define the main terms of frames using slope deflection
3 -	a3- Describe the main concept of beams using stiffness metho
4 -	a4- Describe the main concept of frames using stiffness method
5 -	a5- Describe the main concept of trusses using stiffness method
6 -	a6- Describe the main concept of grids using stiffness method
b.Intellectual Skills: :	
1 -	b1- Calculate the values of beams using slope deflection
c.Professional and Practical Skills: :	
1 -	c1- Prepare technical reports for frames using stiffness method
d.General and Transferable Skills: :	
1 -	d1- Search for information and self-learning discipline

Course Topic And Contents :			
Topic	**No. of hours**	**Lecture**	**Tutorial / Practical**
beams using slope deflection	8	6	2
frames using slope deflection	8	6	2
beams using stiffness method	8	6	2
frames using stiffness method	12	9	3
trusses using stiffness method	8	6	2
grids using stiffness method	12	9	3
Revision	4	3	1

Teaching And Learning Methodologies :
Interactive Lecture
Discussion
Problem Solving
Lab Experements
Project
Report / Presentaion

Course Assessment :			
Methods of assessment	**Relative weight %**	**Week No**	**Assess What**
Final Exam	40.00		
Mid- Exam I, II	30.00		
Quizzes / Assignments	15.00		
Report / Presentation	15.00		

Course Notes :
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Recommended books :
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Periodicals :
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Web Sites :
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