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 :

1. Determination of deformations using differential equation method,
2. Determination of deformations using conjugate Beam Method
3. Determination of deformations using: method of virtual Work,
4. Analysis of statically indeterminate structures using method of consistent deformations,
5. Analysis of statically indeterminate structures method of Equation of Three Moments
6. Analysis of statically indeterminate structures method of moment distribution,

Description :

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

Course outcomes :

a.Knowledge and Understanding: :

1 -	An ability to apply knowledge of mathematics, science and engineering
2 -	″ÁAn ability to design a system, component or process to meet desired needs within realistic constraints such as safety, manufacturability and sustainability

b.Intellectual Skills: :

1 -	- An ability to identify, formulate and solve engineering problems
2 -	An ability to use the techniques, skills and modern engineering tools necessary for engineering practice

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c.Professional and Practical Skills: :

1 -	Knowledge of differential equations,linear algebra , complex variables and discrete mathematics .

d.General and Transferable Skills: :

1 -	Ability to practice team work and present results

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Differential Equation(Double Integration Method	6	4	2
Conjugate Beam Method	9	6	3
Method of Virtual Work	10	8	2
Method of Consistent Deformations	4	2	2
Method of Equation of Three Moments	8	4	4
Method of Moment Distribution	4	2	2

Teaching And Learning Methodologies :

Class Lectures
Tutorials

Course Notes :

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Recommended books :

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Periodicals :

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Web Sites :

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