FUTURE UNIVERSITY IN EGYPT جامعة المستقبل

Faculty of Engineering & Technology

Theory of Structures

Information :

Course Code :	SCM 214	**Level :**	Undergraduate	**Course Hours :**	3.00- Hours

Department : Department of Architectural Engineering

Instructor Information :

Title	Name	Office hours
Associate Professor	Ahmed Mohamed Abd Elkhaleq Ebid	
Lecturer	Dina Muhammad Fathy Ors	
Assistant Lecturer	MUHAMMAD DIAB SAAD ELDIN ABDLAAL	
Assistant Lecturer	MOHAMMED TAHER ABDELHAMID MOHAMMED YOUSSEF	

Area Of Study :

By the end of the course the students will be able to:
ÅDetermine the reactions at the supports.
ÅDetermine of the Internal Forces Diagrams for the statically determinate structures (Beams-Frames-Trusses) under applied static loads.
ÅDetermine the stability and determinacy of structures.

Description :

Equilibrium, stability & compatibility, External & internal equilibrium of statically desemesterinate plane structures: beams, frames & trusses, Normal, shear, tensional stresses & combined stresses, Elastic deformations, Introduction to the analysis of statically indesemesterinate structures through consistent deformations & moment distribution, Buckling of columns, Introduction to space structures.

Course outcomes :

a.Knowledge and Understanding: :	
1 -	Define basic concepts of structural modeling.
2 -	Understand the behavior of structures.
b.Intellectual Skills: :	
1 -	Ability to analyze the engineering problems .
2 -	Ability to derive different solution alternatives for engineering problems .
3 -	Ability to assess the obtained results accuracy .
c.Professional and Practical Skills: :	
1 -	Ability to handle different types of structures.
2 -	Ability to handle different structural systems .

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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
Review of plane statics.	4	2	2
Types of loads and supports.	8	4	4
Stability of structures and degree of determinacy.	8	4	4
Determination of internal forces in Beams.	16	8	8
Determination of internal forces in Frames.	8	4	4
Determination of internal forces in Plane Trusses.	4	2	2

Teaching And Learning Methodologies :

Class Lectures .

Tutorials .

Course Assessment :

Methods of assessment	Relative weight %	Week No	Assess What
Final-term Examination	40.00		_
Mid-Term Examinations	30.00		_
Semester Work & Quizzes	30.00		_

Course Notes :

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Recommended books :

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Periodicals :

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Web Sites :

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