Faculty of Engineering & Technology

Reinforced Concrete for Architects

Information :

Course Code :	SCM 317	**Level :**	Undergraduate	**Course Hours :**	2.00- Hours

Department : Department of Architectural Engineering

Instructor Information :

Title	Name	Office hours
Professor	Ahmed Farouk Mohamed Hassan Deifalla	2
Professor	Ahmed Farouk Mohamed Hassan Deifalla	2
Assistant Lecturer	DINA HESHAM MOHAMED HELMY	6

Area Of Study :

By the end of the course the students will be introduced to:
Åcalculation of load intensity.
ÅIllustrate different phases of concrete and design using limit state
ÅDetermine load distribution on beams
ÅDesign of beams and columns
ÅDetailing of steel reinforcement of simple/continuous beams
ÅIllustrate different structural systems as flat slabs, paneled beams

Description :

Design principles of concrete, Fundamentals of reinforced concrete structures, Analysis and design of sections subjected to bending, Loads and load distribution, Reinforcement details of beams, Solid slabs, Columns, Stairs, Statically desemesterinate frames, Ribbed and hollow block slabs, Paneled Beam slabs, Flat slabs, Connections of precast concrete structural elements.

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 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.
3 -	Ability to assess the effect of live loading and moving loads.

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d.General and Transferable Skills: :	
1 -	Ability to practice team work and present results.
2 -	Manage time and meet deadlines.

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Calculation of load intensity.	4	2	2
Different phases of concrete and design using limit state.	8	4	4
Load distribution on beams.	8	4	4
Design of beams subjected to bending moment and shear.	8	4	4
Design of columns.	4	2	2
Detailing of steel reinforcement of beams and columns.	6	3	3
Different structural systems.	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	20.00		
Oral Examination	10.00		
Other types of assessment	5.00		
Practical Examination	5.00		
Semester Work	20.00		

Course Notes :

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Recommended books :

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Periodicals :

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Web Sites :

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