Faculty of Engineering & Technology

Reinforced Concrete 4

Information :

Course Code :	SCM 511	**Level :**	Undergraduate	**Course Hours :**	2.00- Hours

Department : Department of Structural Engineering & Construction Management

Instructor Information :

Title	Name	Office hours
Professor	AHMED FAROUK MOHAMED HASSAN DEIFALLAH	4
Professor	AHMED FAROUK MOHAMED HASSAN DEIFALLAH	4
Assistant Lecturer	SARAH SALAH SAYED HUSSIEN ALI ELSHISHTAWY	6
Assistant Lecturer	Nada Mohamed Abd El Hamid Ali Mohamed	18

Area Of Study :

ÅGet familiar with water pressure distribution on tank elements
ÅUsing moment distribution method to calculate straining action in tank elements
ÅDesign of un-cracked concrete members.
ÅEstimate the earthquake and wind loads on supporting structure of elevated towers the structure.
ÅRe-bars detailing of each element of tank

Description :

Design and reinforcement details: arches, vierendeal girders, trusses, deep beams and short cantilever, Wind and earthquake loads resistant structures, Design of reinforced concrete walls, Fundamentals of pre-stressed concrete.

Course outcomes :

a.Knowledge and Understanding: :	
1 -	Understanding the principals of liquid hydrostatic pressure
2 -	Understanding the design concepts of liquid tight RC sections
b.Intellectual Skills: :	
1 -	Ability to calculate the applied external forces on tank elements
2 -	Ability to find the internal straining action in each element
3 -	Ability to design each section according to its tightness condition
4 -	Arranging the re-bars in correct & applicable manner
d.General and Transferable Skills: :	
1 -	The skill of analyzing problems
2 -	Presenting the solution in clear & proper form.

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Load distribution & Structural analysis	8	4	4
Design of un-cracked sections	8	4	4
Design of rectangle tanks elevated, rested & underground	16	8	8
Design of circular tanks elevated, rested & underground	16	8	8

Teaching And Learning Methodologies :

Class Lectures

Tutorials

Course Assessment :

Methods of assessment	Relative weight %	Week No	Assess What
Final Examination	40.00		
Homework & Quizzes	15.00		
Attendance & performance	15.00		
Mid Term Examinations	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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