

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 HUSSEIN ALI ELSHISHTAWY	6
Assistant Lecturer	Nada Mohamed Abd El Hamid Ali Mohamed	18

Area Of Study :

- Get familiar with water pressure distribution on tank elements
- Using moment distribution method to calculate straining action in tank elements
- Design of un-cracked concrete members.
- Estimate the earthquake and wind loads on supporting structure of elevated towers the structure.
- Re-bars detailing of each element of tank

Description :

Cracking limits, Water rectangular and cylindrical tanks, Masonry walls: reinforced and unreinforced.

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 :

-

Recommended books :

-

Periodicals :

-

Web Sites :

-