

Faculty of Engineering & Technology

Reinforced Concrete 2

Information :

Course Code : SCM 412 **Level :** Undergraduate **Course Hours :** 3.00- Hours

Department : Department of Structural Engineering & Construction Management

Instructor Information :

Title	Name	Office hours
Professor	AHMED FAROUK MOHAMED HASSAN DEIFALLAH	4
Assistant Lecturer	Nada Mohamed Abd El Hamid Ali Mohamed	5

Area Of Study :

- Design of sections under eccentric forces
- Design and reinforcement details of concrete columns
- Structural systems for large span concrete structures
- Design and reinforcement details of frames
- Design of columns subjected to bending moment, shear and normal forces
- Detailing of steel reinforcement for frames.

Description :

Design and reinforcement details: solid slabs, ribbed slabs, paneled beams slab, flat slabs (beam less slabs), Stairs, Design of sections under axial loading.

Course outcomes :

a. Knowledge and Understanding: :

- 1 - Address the failure modes for section under eccentric load
- 2 - List the different Structural systems for large span concrete structures

b. Intellectual Skills: :

- 1 - Design of sections under eccentric forces
- 2 - Design of concrete columns
- 3 - Design of concrete frames

c. Professional and Practical Skills: :

- 1 - Draw native reinforcement details of columns
- 2 - Draw native reinforcement details of frames

d. General and Transferable Skills: :

- 1 - Work in stressful environment and within constraints

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Design of sections under eccentric forces	2	6	4
Design and detailing of short columns	2	6	4
Design and detailing of long columns	3	10	6
Structural systems for large span concrete structures	2	6	4
Design and detailing of two hinged frame	2	6	4
Design and detailing of two fixed frame	2	6	4
Design and detailing of radial frame	2	6	4

Course Assessment :

Methods of assessment	Relative weight %	Week No	Assess What
Final Exam	40.00		
first mid-term exam	25.00		
performance	10.00		
second mid-term exam	25.00		