

**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
Lecturer	Tarek Salah El Din Moustafa Ragheb	8
Lecturer	Tarek Salah El Din Moustafa Ragheb	8
Assistant Lecturer	Dina Yehia Zakaria Ewais	19
Assistant Lecturer	Ahmed Mohamed Abdel Moniem Mohamed Soliman	2
Assistant Lecturer	Ahmed Mohamed Abdel Moniem Mohamed Soliman	2

**Area Of Study :**

Upon successful completion of this course, the student should be able to:

- Understand the basic concepts and main principles
- Calculate the values of the essential terms
- Design and draw neat details
- Apply Codes provisions

Regarding sections under eccentric loads short columns long columns large span concrete structures frames polygons & arches

**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 -	a1- List the main items of sections under eccentric load
2 -	a2- List the main items of large span concrete structures
3 -	a3- Describe the main concept of frames
4 -	a4- Describe the main concept of polygons & arches

**b. Intellectual Skills: :**

1 -	b1- Design the elements of sections under eccentric loads
2 -	b2- Design the elements of short columns
3 -	b3- Design the elements of long columns
4 -	b4- Analyze the system of frames
5 -	b5- Analyze the system of polygons & arches

**c. Professional and Practical Skills: :**

1 -	c1- Apply Code provisions regarding short columns
2 -	c2- Apply Code provisions regarding long columns
3 -	c3- Prepare technical reports for large span concrete structures
4 -	c4- Draw neat details of frames
5 -	c5- Draw neat details of polygons & arches

**d. General and Transferable Skills: :**

1 -	d1- Work under stress
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**Course Topic And Contents :**

Topic	No. of hours	Lecture	Tutorial / Practical
sections under eccentric loads	10	6	4
short columns	10	6	4
long columns	10	6	4
large span concrete structures	10	6	4
frames	20	12	8
polygons & arches	10	6	4
Revision	5	3	2

**Teaching And Learning Methodologies :**

Interactive Lecture  
Discussion  
Problem Solving  
Lab Experiments  
Project  
Report / Presentation

**Course Assessment :**

Methods of assessment	Relative weight %	Week No	Assess What
Final Exam	40.00		
Mid- Exam I, II	30.00		
Project	10.00		
Quizzes / Assignments	10.00		
Report / Presentation	10.00		