

**Faculty of Engineering & Technology**  
**Special Reinforced Concrete Structures 1**

**Information :**

**Course Code :** SCM 592      **Level :** Undergraduate      **Course Hours :** 3.00- Hours

**Department :** Department of Structural Engineering & Construction Management

**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  
 Regarding pre-cast concrete elements reinforced concrete wall bearing shells & domes folded plates

**Description :**

Pre-cast concrete elements, Design of reinforced concrete walls, Pile caps, High-rise buildings.

**Course outcomes :**

**a. Knowledge and Understanding: :**

1 -	List the main items of pre-cast concrete elements
2 -	Define the main terms of reinforced concrete wall bearing
3 -	Describe the main concept of shells & domes

**b. Intellectual Skills: :**

1 -	Design the elements of reinforced concrete wall bearing
2 -	Analyze the system of shells & domes
3 -	Design the elements of folded plates

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

1 -	Prepare technical reports for pre-cast concrete elements
2 -	Apply Code provisions regarding reinforced concrete wall bearing
3 -	Draw neat details of shells & domes
4 -	Draw neat details of folded plates

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

1 -	Search for information and self-learning discipline
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**Course Topic And Contents :**

Topic	No. of hours	Lecture	Tutorial / Practical
Pre-cast concrete elements	16	12	4
Reinforced Concrete wall bearing shells & domes	12	9	3
shells & domes	16	12	4

**Course Topic And Contents :**

Topic	No. of hours	Lecture	Tutorial / Practical
folded plates	12	9	3
Revision	4	3	1

**Teaching And Learning Methodologies :**

Interactive Lec.  
Discussion  
Problem Solving  
Report / Present.

**Course Assessment :**

Methods of assessment	Relative weight %	Week No	Assess What
Final exam	40.00		
First Mid Term Exam	15.00		
Quizzes / Assig.	15.00		
Report / Present	15.00		
Second Mid Term Exam	15.00		

**Course Notes :**

Lecture Notes on Moodle

**Recommended books :**

" Design of reinforced concrete structures" Vol. 3+4 Dr. Mashhour Ghoniem- El-Mehilmy- Cairo University.