Reinforced Concrete 5

Information :

Course Code : SCM 514	**Level :** Undergraduate	**Course Hours :** 3.00- Hours

Department : Department of Structural Engineering & Construction Management

Instructor Information :

Title	Name	Office hours
Professor	Khaled Mohamed Mohamed Heiza	1

Area Of Study :

1- Get familiar with the Strut and Tie Concept

2- Understand the requirements and the design of the deep beam and corbels.

3- Design pre-stressed concrete members.

4- Estimate the earthquake and wind loads on the structure.

5- Establish different lateral load resisting system.

Description :

Cracking limits, Water tanks, Footings and pile caps, Masonry walls: reinforced and un-reinforced

Course outcomes :

a.Knowledge and Understanding: :

1 -	Define basic concepts of structural modeling
2 -	Understand the behavior of structures

b.Intellectual Skills: :

1 -	Ability to analyze the engineering problems
2 -	Ability to derive different solution for engineering problems
3 -	Ability to assess the obtained results accuracy

c.Professional and Practical Skills: :

1 -	Ability to handle different types of structures
2 -	Ability to handle different structural systems
3 -	Ability to translate structural design to structural detailing for execution

d.General and Transferable Skills: :

1 -	Ability to practice team work and present results

	2 -	Manage time and meet deadlines

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Strut and Tie Concept	4	2	2
Design of Deep Beams and Short Cantilever (corbels)	4	2	2
Fundamentals of Pre-stressed Concrete	8	4	4
wind and earthquake loads	4	2	2
Concept and design of concrete Arches	4	2	2

Teaching And Learning Methodologies :

Class Lectures
Tutorials

Course Assessment :

Methods of assessment	Relative weight %	Week No	Assess What
Other types of assessment	5.00		
Practical Examination	5.00		
Final-term Examination	40.00		
Mid-Term Examinations	20.00		
Oral Examination	10.00		
Semester Work	20.00		

Course Notes :

-

Recommended books :

-

Periodicals :

-

Web Sites :

-