

## Faculty of Engineering & Technology

### Reinforced Concrete 3

#### Information :

**Course Code :** SCM 416

**Level :** Undergraduate

**Course Hours :** 3.00- Hours

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

#### Instructor Information :

| Title               | Name                                  | Office hours |
|---------------------|---------------------------------------|--------------|
| Associate Professor | Dina Muhammad Fathy Ors               | 18           |
| Associate Professor | Dina Muhammad Fathy Ors               | 18           |
| Assistant Lecturer  | Nada Mohamed Abd El Hamid Ali Mohamed |              |

#### Area Of Study :

- Design and detailing of solid slabs & Staircases
- Design and detailing of ribbed slabs
- Design and detailing of paneled beams
- Design and detailing of flat slab

#### Description :

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, Bearings, Concrete footings, Working loads design method.

#### Course outcomes :

##### **a.Knowledge and Understanding: :**

- 1 - Address the advantage and limits of different type of slabs

##### **b.Intellectual Skills: :**

- 1 - Design of solid slabs
- 2 - Design of ribbed slabs
- 3 - Design of paneled beams
- 4 - Design of flat slab
- 5 - Design of Staircases

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

- 1 - Draw native reinforcement details of different types of slabs

##### **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 and detailing of solid slabs   | 20           | 12      | 8                    |
| Design and detailing of ribbed slabs  | 20           | 12      | 8                    |
| Design and detailing of paneled beams | 10           | 6       | 4                    |
| Design and detailing of flat slabs    | 20           | 12      | 8                    |
| Design and detailing of staircases    | 5            | 3       | 2                    |

### **Teaching And Learning Methodologies :**

Class Lectures

Tutorials

### **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             |         |             |

### **Course Notes :**

Lecture Notes on Moodle

### **Recommended books :**

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### **Periodicals :**

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### **Web Sites :**

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