

Faculty of Engineering & Technology

Building Construction & Materials 4

Information :

Course Code : ARC 342

Level : Undergraduate

Course Hours : 4.00- Hours

Department : Department of Architectural Engineering

Instructor Information :

| Title | Name | Office hours |
|---------------------|---|--------------|
| Associate Professor | Sahar Morsy Mohamed Mohamed Ali | 7 |
| Lecturer | Dina Eid Saed Khater | 2 |
| Assistant Lecturer | Nouran Ashraf Ali Abdeltawab | |
| Teaching Assistant | Amir Bahgat Abd El Azem Ebrahim Eltantawy | |
| Teaching Assistant | Kamal Abdeleziz Ali Selim | 1 |
| Teaching Assistant | AYA TAREK IBRAHEM ABDELHADY AHMED | |
| Teaching Assistant | Omar Magdy Ahmed Ibrahim Elbahrawy | |
| Teaching Assistant | Salma Mohamed Eltohamy Elgendy | |

Area Of Study :

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

- Know the different ways of Thermal and damp proofing.
- Know the main types of expansion and settlement joints.
- Know the different types of flooring, wall and ceiling finishes.
- Recognize the different technics of executing floor, wall and ceiling finishes.

Description :

Contemporary finishing techniques, methods, Architectural /building works, Partitions, curtain walls, Panels, Finishing materials, bricks, timber, metals, plastics and synthetics, Plaster, cladding, suspended ceilings, raised floor....,etc.) Expansion and settlement joints, admixtures, thermal and damp proofing.

Course outcomes :

a.Knowledge and Understanding: :

| | |
|-----|--|
| 1 - | a1. Define the need for building insulation and joints. |
| 2 - | a2. List the different ways of and water, damp thermal proofing. |
| 3 - | a3. Define the main types of expansion and settlement joints. |
| 4 - | a4. List the different types of floor, wall and ceiling finishes. |
| 5 - | a5. Recognize the different types of executing floor, wall and ceiling finishes. |

b. Intellectual Skills: :

| | |
|-----|---|
| 1 - | b1. Differentiate between the different types of thermal and damp proofing. |
| 2 - | b2. Differentiate between the different types of Expansion and settlement joints. |
| 3 - | b3. Weight the importance of building finishes. |
| 4 - | b4. Appraise the characteristics of different building materials |
| 5 - | b5. Select best finishing materials and fixation technics for floor, wall, ceiling and facades. |

c. Professional and Practical Skills: :

| | |
|-----|--|
| 1 - | c1. Draw details with appropriate materials for various interior and exterior finishing cases. |
| 2 - | c2. Draw details of deferent building's parts with thermal and damp proof |
| 3 - | c3. Draw details for Expansion and settlement joints. |
| 4 - | c4. Draw details to solve problem considering the use of different finishing materials side by side. |

d. General and Transferable Skills: :

| | |
|-----|-----------------------------------|
| 1 - | d1. Manage tasks and resources |
| 2 - | d2. Search for information |
| 3 - | d3. Refer to relevant literatures |

Course Topic And Contents :

| Topic | No. of hours | Lecture | Tutorial / Practical |
|---|--------------|---------|----------------------|
| Introduction and overview | 6 | 2 | 4 |
| Water and damp proofing | 6 | 2 | 4 |
| Thermal proofing | 6 | 2 | 4 |
| Expansion and settlement joints | 6 | 2 | 4 |
| Research submission | 6 | 0 | 6 |
| Floor Finishes: Marble/ Granite | 6 | 2 | 4 |
| Floor Finishes: Wooden / Ceramic / Tiles | 6 | 2 | 4 |
| Floor Finishes: Raised floor | 6 | 2 | 4 |
| Introduction to wall Finishes: Partitions / Plaster work/ wall paper | 6 | 2 | 4 |
| Wall Finishes: Cladding / Partitions | 6 | 2 | 4 |
| Wall Finishes: Curtain walls | 6 | 2 | 4 |
| Introduction to Celling Finishes: Ceiling finishes, Plaster work/ Suspended & False Ceiling/ Metal lath | 6 | 2 | 4 |
| Ceiling finishes: Aluminum Strips / Gypsum Tiles / Gypsum Boards / Acoustic Tiles | 6 | 2 | 4 |
| Ceiling finishes: Aluminum Strips / Gypsum Tiles / Gypsum Boards / Acoustic Tiles | 6 | 2 | 4 |
| Revision | 6 | 2 | 4 |

Teaching And Learning Methodologies :

Lectures.

Research

Class Work

Course Assessment :

| Methods of assessment | Relative weight % | Week No | Assess What |
|-------------------------|-------------------|---------|-------------|
| Assignments/Studio work | 30.00 | | |
| Final exam | 40.00 | | |
| Mid-term exam | 20.00 | | |
| Participation | 10.00 | | |

Course Notes :

-

Recommended books :

- a) Ching, Francis D. K.; Building Construction Illustration, Wiley , 4th Ed.
- b) McKay's, W. B. et ell; Building Construction, v. I
- c) Ramsey, Sleeper; Architectural graphic standards. American Institute of Architects and Dennis J. Hall
- d) Mitchell, George A.; Building Construction. v. I

Periodicals :

-