

Faculty of Engineering & Technology
Building Construction and City Planning

Information :

Course Code : SCM 316 **Level :** Undergraduate **Course Hours :** 2.00- Hours

Department : Department of Structural Engineering & Construction Management

Instructor Information :

Title	Name	Office hours
Lecturer	BOTHAINA SAMIH ISMAIL ABOELKHIER BADR	1
Assistant Lecturer	Mohamed Ahmed Reda Abas Ahmed	

Area Of Study :

1. Develop understanding of the nature of loads and load transfer mechanisms in different building systems.
2. Develop understanding of principles of construction as related to construction materials.
3. Differentiate between structural and non-structural building components.
4. Develop understanding of Traditional Construction Method; Bearing Walls.
 - ↳ Using Brick, Rubble or Stones to build bearing elements.
 - ↳ Bridging wall openings by brick, steel, wood and stone (Lintel & Arches).
 - ↳ Introduction to foundation design.
5. Properly design staircases along with pertinent details.
6. Develop understanding of the planning levels, street planning, development schemes and land-use fundamentals.
7. Develop understanding the planning levels and street planning development schemes and land-use fundamentals introduction

Description :

Building construction techniques: buildings construction phases, wall bearing construction, skeleton construction (RC, Steel), Wall techniques: stone and brick, architectural finishing techniques: arches, stairs design, floorings and plastering, Water and heat proofing techniques, Architectural drawings and symbols techniques, City principals: regional planning, site planning, landscaping, housing development, planning levels and street planning, development schemes , land-use fundamentals, site analysis and distribution.

Course outcomes :

a. Knowledge and Understanding: :

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| 1 - | Students understand the principles of different construction methods and materials that may be used in different building types. |
| 2 - | Design and draw staircases, the Expansion and Settlement joints. |

b. Intellectual Skills: :

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| 1 - | Select proper structural systems depending on building type and spans. |
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2 -	Compare and differentiate between structural and non-structural building components.
3 -	Criticize and evaluate different construction systems for different design alternatives.
4 -	Decide and choose among different alternatives for structural systems as related to building spans.
c. Professional and Practical Skills: :	
1 -	Design suitable structural systems and elements to be within proper technical framework.
2 -	Use appropriate graphic techniques for representation.
3 -	Submit professional and technical good looking complete drawings.
d. General and Transferable Skills: :	
1 -	Communicate effectively with other people using visual, graphic, written and verbal means.
2 -	Manage time and meet deadlines.

Course Topic And Contents :			
Topic	No. of hours	Lecture	Tutorial / Practical
Working Drawing introduction	4	2	
English Bond	8	4	
Flemish Bond (Single & Double)	8		
Foundations and Ground Floor	4		
Basement Floor & English Court (Retaining Walls; brick and stones)	8		
Lintels and Arches	4		
Staircases: Design rules + Details	8		
Expansion and Settlement joints	4		
Research Projects and Presentations.	4		
The planning levels and street planning development schemes and land-use fundamentals introduction.	4		

Teaching And Learning Methodologies :
Lecture
Research
Class Work

Course Assessment :			
Methods of assessment	Relative weight %	Week No	Assess What
Assignments and Projects	30.00		
Final Exam	40.00		
Mid-term Exam 1	10.00		
Mid-term Exam 2	10.00		
Performance	10.00		

