

Faculty of Engineering & Technology
Analysis and Design of Masonry Building

Information :

Course Code : SCM 531 **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 elements of masonry reinforced and unreinforced masonry single and multistory buildings
advanced construction methods

Description :

Specification and design methods, Materials, Advanced construction methods, Calculation and analysis of forces acting on members, Analysis and design of un-reinforced and reinforced masonry, Columns and walls, Masonry building systems, Arch action, One and multi-story buildings.

Course outcomes :

a. Knowledge and Understanding: :

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| 1 - | List the main items of elements of masonry |
| 2 - | Define the main terms of reinforced and unreinforced masonry |
| 3 - | List the main items of advanced construction methods |

b. Intellectual Skills: :

- | | |
|-----|---|
| 1 - | Design the elements of elements of masonry |
| 2 - | Analyze the system of single and multistory buildings |

c. Professional and Practical Skills: :

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| 1 - | Apply Code provisions regarding reinforced and unreinforced masonry |
| 2 - | Apply Code provisions regarding single and multistory buildings |
| 3 - | Prepare technical reports for advanced construction methods |

d. General and Transferable Skills: :

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

Topic	No. of hours	Lecture	Tutorial / Practical
elements of masonry	8	6	2
reinforced and unreinforced masonry	16	12	4

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
single and multistory buildings	16	12	4
advanced construction methods	16	12	4
Revision	4	6	1

Teaching And Learning Methodologies :

Interactive Lec.
Discussion
Problem Solving
Report / Present.

Course Assessment :

Methods of assessment	Relative weight %	Week No	Assess What
1st Mid-term exam	15.00		
2nd Mid-term exam	15.00		
Final exam	40.00		
Quizzes / Assig.	15.00		
Report / Present.	15.00		

Course Notes :

Handout notes on MOODLE

Recommended books :

"Design of Masonry Structures", A.W. Hendry, B.P. Sinha, S.R. Davies, Spon Press, 1997