

Faculty of Engineering & Technology

Metallic Structures

Information :

Course Code : SCM 519

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
- Design and draw neat details
- Apply Codes provisions
Regarding fatigue truss bridges steel tanks steel silos transmission towers

Description :

Fatigue, Truss bridges, Tanks: ground, elevated, circular, rectangular, Silos, Towers: types, loads.

Course outcomes :

a.Knowledge and Understanding: :

- | | |
|-----|--------------------------------------------------|
| 1 - | Define the main terms of fatigue |
| 2 - | Describe the main concept of transmission towers |

b.Intellectual Skills: :

- | | |
|-----|-------------------------------------------|
| 1 - | Calculate the values of fatigue |
| 2 - | Calculate the values of truss bridges |
| 3 - | Calculate the values of steel tanks |
| 4 - | Calculate the values of steel silos |
| 5 - | Analyze the system of transmission towers |

c.Professional and Practical Skills: :

- | | |
|-----|---------------------------------------------------|
| 1 - | Apply Code provisions regarding truss bridges |
| 2 - | Apply Code provisions regarding steel tanks |
| 3 - | Apply Code provisions regarding steel silos |
| 4 - | Prepare technical reports for transmission towers |

d.General and Transferable Skills: :

- | | |
|-----|-------------------|
| 1 - | Work under stress |
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Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Fatigue	8	6	2

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
truss bridges	12	9	3
steel tanks	12	9	3
steel silos	12	9	3
transmission towers	12	9	3
Revision	4	3	1

Teaching And Learning Methodologies :

Interactive Lec.
Discussion
Problem Solving
Project
Report / Present

Course Assessment :

Methods of assessment	Relative weight %	Week No	Assess What
final exam	40.00		
Mid- Exam I, II	30.00		
Project	10.00		
Quizzes / Assig	10.00		
Report / Present	10.00		

Course Notes :

Student Lecture Notes

Recommended books :

Egyptian Code Of Practice For Steel Construction And Bridges