

Faculty of Engineering & Technology

Metallic Bridges

Information :

Course Code : SCM 515 **Level :** Undergraduate **Course Hours :** 3.00- Hours

Department : Department of Structural Engineering & Construction Management

Instructor Information :

Title	Name	Office hours
Associate Professor	Said Yousif Aboul Haggag Abdul Aziz	12
Associate Professor	Ahmed Farouk Mohamed Hassan Deifalla	
Associate Professor	Said Yousif Aboul Haggag Abdul Aziz	12
Associate Professor	Said Yousif Aboul Haggag Abdul Aziz	12
Assistant Lecturer	Ahmed Mohamed Abdel Moniem Mohamed Soliman	16
Assistant Lecturer	Muhammad Diab Saadeldin Abdl aal	
Teaching Assistant	Reham Milad Kamel Samaan	4
Teaching Assistant	Ahmed Taher Abdelhamed Mohamed Yousef	
Teaching Assistant	Reham Milad Kamel Samaan	4

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 types of bridges bridge layout bridge deck stringers cross-girders main girder bracing

Description :

Structural systems for bridges, Floors types, Design loads, Design of plate girders: buckling considerations, fatigue effect, cross-section design, construction details, Design of composite beams, Design of box girders

Course outcomes :

a.Knowledge and Understanding: :

- | | |
|-----|---|
| 1 - | List the main items of types of bridges |
|-----|---|

b.Intellectual Skills: :

- | | |
|-----|------------------------------------|
| 1 - | Assess issues of types of bridges |
| 2 - | Assess issues of bridge layout |
| 3 - | Design the elements of bridge deck |
| 4 - | Design the elements of stringers |

5 -	Design the elements of cross-girders
6 -	Design the elements of main girder
7 -	Design the elements of bracing

c. Professional and Practical Skills: :

1 -	Prepare technical reports for types of bridges
2 -	Draw neat details of bridge layout
3 -	Apply Code provisions regarding bridge deck
4 -	Apply Code provisions regarding stringers
5 -	Apply Code provisions regarding cross-girders
6 -	Draw neat details of main girder
7 -	Apply Code provisions regarding bracing

d. General and Transferable Skills: :

1 -	Work under stress
-----	-------------------

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Types of bridges	4	3	1
Bridge layout	8	6	2
Bridge deck	8	6	2
Design of stringers	8	6	2
Design of cross-girders	8	6	2
Design of main girder	12	9	3
Bracing	8	6	2

Teaching And Learning Methodologies :

Lecture
Class Work
Project

Course Assessment :

Methods of assessment	Relative weight %	Week No	Assess What
Assignments/Studio work	5.00		
Final exam	40.00		
Performance	10.00		
Project	10.00		
Quizzes	5.00		
Two Mid Term Exams	30.00		

Course Notes :

Student Lecture Notes

Recommended books :

Egyptian Code Of Practice For Steel Construction And Bridges