

Faculty of Engineering & Technology

Metallic Bridges

Information :						
Course Code :	SCM 526	Level	:	Undergraduate	Course Hours :	3.00- Hours
Department : Department of Structural Engineering & Construction Management						
<u>Area Of Study :</u>						

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 truss bridges layout truss bridges members truss bridges connections cable stayed bridges layout cable stayed bridges members cable stayed bridges connections

Description :

Design of truss bridges: cross-sections used, design of members and connections, construction details, Design of cablestayed

bridges: types of cross-sections, structural analysis methods, design of cross-section.

a.Knowledge and Understanding: :				
1 -	Explain the principals of truss bridges layout			
2 -	Explain the principals of cable stayed bridges layout			
b.Intellectual Skills: :				
1 -	Analyze the system of truss bridges layout			
2 -	Design the elements of truss bridges members			
3 -	Design the elements of truss bridges connections			
4 -	Analyze the system of cable stayed bridges layout			
5 -	Design the elements of cable stayed bridges members			
6 -	Design the elements of cable stayed bridges connections			
c.Professio	onal and Practical Skills: :			
1 -	Draw neat details of truss bridges layout			
2 -	Apply Code provisions regarding truss bridges members			
3 -	Draw neat details of truss bridges connections			
4 -	Prepare technical reports for cable stayed bridges layout			
5 -	Apply Code provisions regarding cable stayed bridges members			
6 -	Draw neat details of cable stayed bridges connections			



1 -

d.General and Transferable Skills: :

Work under stress

Course Topic And Contents :			
Торіс	No. of hours	Lecture	Tutorial / Practical
Truss bridges layout	8	6	2
Truss bridges members	12	9	3
Truss bridges connections	8	6	2
Cable stayed bridges layout	8	6	2
Cable stayed bridges members	12	9	3
Cable stayed bridges connections	8	6	2
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		
First Mid Term Exam	15.00		
Quizzes / Assig.	15.00		
Report / Present.	15.00		
Second Mid Term Exam	15.00		

Course Notes :	
Handout notes on MOODLE	

Recommended books :

" Steel Structure Design " Allowable Stress Design ", Abdel-Reheem Khalil Dessouki, 2009