Faculty of Engineering & Technology

Metallic Structures 1

Information :

Course Code :	SCM 413	**Level :**	Undergraduate	**Course Hours :**	3.00- Hours

Department : Department of Structural Engineering & Construction Management

Instructor Information :

Title	Name	Office hours
Lecturer	Ahmed Amr Kadry Ahmed Shaheen	6
Assistant Lecturer	MOHAMMED TAHER ABDELHAMID MOHAMMED YOUSSEF	2

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 layout & loads section classification & buckling lengths tension & compression members truss bolted connections truss welded connections laterally supported & unsupported beams wind bracings

Description :

Introduction, Tension members, Compression members, Columns, Beams (Rolled sections), Beam-columns, Wind bracings.

Course outcomes :

a.Knowledge and Understanding: :	
1 -	Regarding layout & loads section classification & buckling lengths tension & compression members truss bolted connections truss welded connections laterally supported & unsupported beams wind bracings
2 -	a2- Define the main terms of section classification & buckling lengths
3 -	a2- Define the main terms of section classification & buckling lengths
b.Intellectual Skills: :	
1 -	b1- Analyze the system of section classification & buckling lengths
2 -	b2- Design the elements of tension & compression members
3 -	b3- Design the elements of truss bolted connections
4 -	b4- Design the elements of truss welded connections
5 -	b5- Analyze the system of laterally supported & unsupported beams
6 -	b6- Design the elements of wind bracings
c.Professional and Practical Skills: :	
1 -	c1- Prepare technical reports for layout & loads

2 -	c2- Apply Code provisions regarding section classification & buckling lengths
3 -	c3- Apply Code provisions regarding tension & compression members
4 -	c4- Apply Code provisions regarding truss bolted connections
5 -	c5- Apply Code provisions regarding truss welded connections
6 -	c6- Apply Code provisions regarding laterally supported & unsupported beams
7 -	c7- Apply Code provisions regarding wind bracings
d.General and Transferable Skills: :	
1 -	d1- Work under stress
2 -	Manage time and resources.

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
layout & loads	4	3	1
section classification & buckling lengths	4	3	1
tension & compression member	8	6	2
truss bolted connections	12	9	3
truss welded connections	12	9	3
laterally supported & unsupported beams	12	9	3
wind bracings	4	3	1
Revision	4	3	1

Teaching And Learning Methodologies :

Interactive Lecture
Discussion
Problem Solving
Lab Experements
Project
Report / Presentaion

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 / Assignments	10.00		
Report / Presentation	10.00		