Faculty of Engineering & Technology

Civil Engineering

Information :

Course Code :	SCM 217	**Level :**	Undergraduate	**Course Hours :**	2.00- Hours

Department : Department of Electrical Engineering

Instructor Information :

Title	Name	Office hours
Lecturer	HOSAM MOSTAFA MAHMOUD EID HEGAZY	
Lecturer	khaled Mahmoud Abdelaziz Mahmoud Boray	
Assistant Lecturer	Muhammad Diab Saadeldin Abdl aal	
Assistant Lecturer	Noura Khedr Abdul raheem Ahmed	
Teaching Assistant	Mahmoud Mohamed Khalaf Ahmed	

Area Of Study :

1. Know how to model simple structures.
2. Learn the physical/mechanical properties of construction materials.
3. Know how to draw internal force diagrams for simple structures.
4. Apply basics of survey to measure angles, distances and heights.
5. Share ideas and work in a team or a group.

Description :

Types and usage of buildings: concrete, metallic, Construction materials and Specifications, Types of walls and ceilings, Foundations, Design methods of machine base and foundations, First principles of geodetic surveying, Surveying equipment, Leveling methods, Longitudinal and transverse contour sections.

Course outcomes :

a.Knowledge and Understanding: :	
1 -	Demonstrate knowledge and understanding of modeling simple structures.
2 -	Demonstrate knowledge and understanding of physical/mechanical properties of construction materials.
3 -	Demonstrate knowledge and understanding of principles of geodetic surveying, surveying equipment.
b.Intellectual Skills: :	
1 -	Draw internal force diagrams for simple structures.
2 -	Apply basics of survey to measure angles, distances and heights.
3 -	b3- Decide and chose among different solution alternatives.
4 -	b4- Evaluate obtained results both individually or as a part of team.

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Calculation of reactions for beams, frames and trusses.	12	8	4
Types of structures, loads and supports.	3	2	1
Calculation of internal forces at any section.	3	2	1
Drawing N.F.D., S.F.D. and B.M.D. for simple structures.	9	6	3
Mechanical properties for some construction materials.	6	4	2
Classes of Survey.	3	2	1
Ordinary leveling ï Grid leveling.	3	4	2
Open and closed traverse.	3	2	1

Teaching And Learning Methodologies :

Lectures

Tutorials

Laboratories

Course Assessment :

Methods of assessment	Relative weight %	Week No	Assess What
Final Exam	40.00	15	to assess the ability to solve problems and analyze results independently.
First Mid-Term Exam	15.00	7	to assess the ability to solve problems and analyze results independently.
Quizzes and Assignments	30.00		to assess the ability to solve problems and analyze results independently.
Second Mid-Term Exam	15.00	11	to assess the ability to solve problems and analyze results independently.

Course Notes :

No course notes are required

Recommended books :

Essential books (text books)
1) M. El-Dakhakhni. Theory of Structures. Cairo: Dar El-Maaref.
2) Mc Cormac, Jack. Surveying. 3rd edition: John Wiley and Sons, 1995.
3) Somayaji, Shan. Civil Engineering Materials. 2 edition: Prentice Hall, 2001.
Recommended books
1) Vien et al. Surveying for Engineers. Third Edition, 1994.
2) M. Mamlouk and J. Zaniewski, Micheal and John. Materials for Civil Engineering and Construction Engineers. 2 edition: Prentice Hall, 2005.