

Faculty of Engineering & Technology

Planimetric Surveying 2

Information :

Course Code : SCM 222

Level : Undergraduate

Course Hours : 2.00- Hours

Department : Department of Structural Engineering & Construction Management

Instructor Information :

Title	Name	Office hours
Lecturer	khaled Mahmoud Abdelaziz Mahmoud Boray	1
Assistant Lecturer	Noura Khedr Abdul raheem Ahmed	

Area Of Study :

- Scales used in mapping.
- Surveying application in mapping.
- Coordinate computations and manipulations.
- Angular measurements corrections using theodolite.
- Theodolite application through Tacheometry.
- The total station as a powerful surveying tool.

Description :

Traverse, Tachometry, Surveying using plain table, Topographic surveying, Mapping, Horizontal and vertical curves layout, Engineering projects layout, Accuracy of surveying measurements, Probability theory.
Prerequisites : SCM 221

Course outcomes :

a. Knowledge and Understanding: :

1 -	Define main concepts of surveying computations.
2 -	- Adequate knowledge of commonly used surveying instruments.
3 -	- Surveying as a mapping tool.

b. Intellectual Skills: :

1 -	Capability to differentiate between mapping scales.
2 -	Usage of surveying for mapping purposes.
3 -	Handling of coordinates and bearings.
4 -	- Dealing with traverse calculations.
5 -	Ability to assess and correct angular measurements.
6 -	Fair knowledge of the total station.

c. Professional and Practical Skills: :

1 -	- Ability to categorize theodolite screws and parts.
2 -	Ability to handle and practically work with the theodolite.

3 - Ability to classify and handle various kinds of total stations .

d.General and Transferable Skills :

1 - The skill and gift of working in team.

2 - Writing and presentation of surveying observations and results.

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Angular measurements using theodolite	10	1	4
Computation of coordinates	4	1	1
Usage of scales for mapping	4	1	1
Surveying for mapping	6	2	1
Traverse computations	8	2	2
Theodolite Application - Tacheometry	6	1	2
Basic Concept of Total Station	2	1	
Theory of errors	4	2	

Teaching And Learning Methodologies :

4.1- Class Lectures

- Tutorials

Practicals

Course Assessment :

Methods of assessment	Relative weight %	Week No	Assess What
Quizzes	5.00	3	
Quizzes	5.00	9	
1st Mid term Exam	20.00	6	
2nd Mid term Exam	20.00	11	
Final Exam	40.00	15	

Course Notes :

-

Recommended books :

-

Periodicals :

-

Web Sites :

-