

## Faculty of Engineering & Technology

### Planimetric Surveying 1

**Information :**

**Course Code :** SCM 221      **Level :** Undergraduate      **Course Hours :** 2.00- Hours

**Department :** Department of Structural Engineering & Construction Management

**Instructor Information :**

Title	Name	Office hours
Professor	Tamer Fathy Fathallah Ahmed Soror	
Assistant Lecturer	Ahlam Ibrahim Sadek Elgendy	2

**Area Of Study :**

- Distance measurements operations and its usage in mapping.
- Various area computation techniques.
- Leveling process and its application.
- Angular measurements using theodolite

**Description :**

Distance measurements and their corrections, Surveying operations using distance measurements, Area computations, Leveling, Grid leveling, Contour maps, Profiles, Cross sections, Volume computations, Angle measurements using theodolites.

**Course outcomes :**

**a. Knowledge and Understanding: :**

- 1 - Define basic concepts of surveying operations
- 2 - Primary surveying applications in engineering projects

**b. Intellectual Skills: :**

- 1 - Ability to derive different solutions for distance measurement obstacles.
- 2 - Ability to differentiate between area computational techniques
- 3 - Ability to analyze leveling data for elevation calculation
- 4 - Usage of leveling for volume computations and grid leveling

**c. Professional and Practical Skills: :**

- 1 - Ability to distinguish distance measurement tools and instruments.
- 2 - Ability to identify different types of surveying levels.
- 3 - Ability to categorize surveying level and theodolite screws and parts
- 4 - Ability to handle and practically work with the level and theodolite

**d. General and Transferable Skills: :**

- 1 - The skill and gift of working in team

**Course Topic And Contents :**

Topic	No. of hours	Lecture	Tutorial / Practical
Introduction	2	1	-
Distance measurement operations	7	2	1
Surveying for mapping	4	1	1
Area Computation	5	2	1
Leveling process	7	2	
Leveling applications	8	3	1
Basic Concept of Theodolite	3	1	-
Angular measurements using theodolite	2	1	-

**Teaching And Learning Methodologies :**

Lectures  
Tutorials  
practicals

**Course Assessment :**

Methods of assessment	Relative weight %	Week No	Assess What
1st mid term	10.00		
2nd mid term	10.00		
final	40.00		
quiz, oral	10.00		
semester work	30.00		

**Course Notes :**

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**Recommended books :**

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**Periodicals :**

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**Web Sites :**

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