

Faculty of Engineering & Technology

Surveying

Information :

Course Code : SCM 223

Level : Undergraduate

Course Hours : 2.00- Hours

Department : Department of Architectural Engineering

Instructor Information :

Title	Name	Office hours
Associate Professor	Abdelwahab Mohamed Abdelwahab Mohamed Amer	1
Assistant Lecturer	Ahlam Ibrahim Sadek Elgendy	1

Area Of Study :

Upon successful completion of the course, the student should be able to:

- Different units systems and how to transform among them.
- Distance measurements operations and its usage in mapping.
- Scales used in mapping.
- Surveying application in mapping.
- Leveling process.
- Angular measurements using theodolite.
- Theodolite application through Tacheometry.
- Surveying using total station.

Description :

Basic elements of surveying and their architectural applications, Plotting scales, verniers, linear of angular and simple angular measurement devices, Chain surveying, Leveling & theodolites, Map drawing, Photogrammetry and its architectural applications.

Course outcomes :

a. Knowledge and Understanding: :

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| 1 - | Define basic concepts of surveying operations. |
| 2 - | Define the basic surveying instruments. |

b. Intellectual Skills: :

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| 1 - | Derive various solutions for distance measurement obstacles. |
| 2 - | Differentiate between mapping scales. |
| 3 - | Use surveying for mapping purposes. |
| 4 - | Analyze leveling data for elevation calculation. |
| 5 - | Assess angular measurements. |

c. Professional and Practical Skills: :

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| 1 - | Distinguish distance measurement tools and instruments. |
| 2 - | Identify different types of surveying levels. |

3 -	Categorize surveying level and theodolite screws and parts.
4 -	Handle and practically work with the level and theodolite.
d.General and Transferable Skills: :	
1 -	Work in team.
2 -	Write observations and results.

Course Topic And Contents :			
Topic	No. of hours	Lecture	Tutorial / Practical
Introduction.	4	2	2
Distance measurement operations.	10	4	6
Surveying for mapping.	6	2	4
Usage of scales for mapping.	4	2	2
Leveling process.	16	6	10
Basic Concept of Theodolite.	6	2	4
Angular measurements using theodolite.	6	2	4
Theodolite Application . Triangulation	4	2	2
Total Station	60	24	36

Teaching And Learning Methodologies :
Lectures.
Tutorials.
Practical work

Course Assessment :			
Methods of assessment	Relative weight %	Week No	Assess What
Final Exam	40.00		
In Class Quizzes	15.00		
Performance & Participation	10.00		
Practical Examinations	10.00		
Semester Work	25.00		

Course Notes :
No Course Notes.

Recommended books :
1. Students Lecture Notes
2. Handouts

Periodicals :

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Web Sites :

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