

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 :

By the end of the course the students will be introduced 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.

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 - | Adequate knowledge of basic surveying instruments. |

b. Intellectual Skills: :

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| 1 - | Ability to derive various solutions for distance measurement obstacles. |
| 2 - | Capability to differentiate between mapping scales. |
| 3 - | Usage of surveying for mapping purposes. |
| 4 - | Ability to analyze leveling data for elevation calculation. |
| 5 - | Ability to asses angular measurements. |

c. Professional and Practical Skills: :

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| 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.
2 -	Writing and presentation of surveying observations and results.

Course Topic And Contents :			
Topic	No. of hours	Lecture	Tutorial / Practical
Introduction.	4	2	2
Distance measurement operations.	10	5	5
Surveying for mapping.	6	3	3
Usage of scales for mapping.	4	2	2
Coordinate Computation.	4	2	2
Leveling process.	12	6	6
Basic Concept of Theodolite.	4	2	2
Angular measurements using theodolite.	4	2	2

Teaching And Learning Methodologies :
Class Lectures.
Tutorials.
Practicals.
Presentations.

Course Assessment :			
Methods of assessment	Relative weight %	Week No	Assess What
Final Examination.	40.00		
Mid Term Examinations.	20.00		
Practical Examination.	10.00		
Semester Work.	30.00		

Course Notes :
No Course Notes.

Recommended books :
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Periodicals :
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Web Sites :

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