FUTURE UNIVERSITY IN EGYPT
جامعة المستقبل

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	Ahmed Emad Hafez Mustafa Raghib	4
Associate Professor	Ahmed Emad Hafez Mustafa Raghib	4
Teaching Assistant	Ahmed Mohamed Abdelmaaboud Habib	
Teaching Assistant	Mahmoud Ahmed Mahmoud Hamdi	

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: :	
1 -	Define basic concepts of surveying operations.
2 -	Define the basic surveying instruments.
b.Intellectual Skills: :	
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: :	
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 – Tacheometry	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
Finam 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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