

Faculty of Engineering & Technology

Planimetric Surveying 1

Information :

Course Code : SCM 221

Level : Undergraduate

Course Hours : 2.00- Hours

Department : Department of Petroleum Engineering

Instructor Information :

Title	Name	Office hours
Associate Professor	Ashraf Fahmy Mohamed Ismael	4
Teaching Assistant	AHMED NAGUIB ABDELAZIZ ABDELAZIZ GHONIM	
Teaching Assistant	Abdelrahman Adel Abdullah Abdelghany Kandil	

Area Of Study :

- Distance measurement operations and their usage in mapping.
- Scales used in mapping.
- Surveying application in mapping.
- Coordinate computations and manipulations.
- Various area computation techniques.
- Angular measurements using theodolite.
- Traverse computations.
- Leveling computations

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 - Describe basic concepts of surveying operations.
- 2 - Select primary surveying applications in engineering projects.
- 3 - Gather knowledge of commonly used surveying instruments.
- 4 - Identify Surveying as a mapping tool.

b. Intellectual Skills: :

- 1 - Demonstrate different solutions for distance measurement obstacles.
- 2 - Compare between area computational techniques
- 3 - Assess angular measurements.
- 4 - Apply surveying for mapping purposes and scales.
- 5 - Apply surveying for mapping purposes and scales.
- 6 - Produce traverse calculations.

c. Professional and Practical Skills: :

1 -	Distinguish distance measurement tools and instruments.
2 -	Categorize surveying theodolite screws and parts.
3 -	Practically work with the theodolite.

d. General and Transferable Skills: :

1 -	Gain team-working skills
2 -	Practice writing and presentation skills

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Introduction	3	2	1
Distance measurement operations	6	4	2
Usage of scales for mapping	3	2	1
Surveying for mapping	6	4	2
Computation of coordinates	3	2	1
Area Computation	6	4	2
Basic Concept of Theodolite	3	2	1
Angular measurements using theodolite	6	4	2
Traverse computations	3	2	1
Basic Concept of Level	3	2	1
Leveling measurements using Levels	3	2	1

Teaching And Learning Methodologies :

Interactive Lecturing
Discussion
Problem-based Learning
Research
Experiential Learning

Course Assessment :

Methods of assessment	Relative weight %	Week No	Assess What
Assignment	10.00		
Final Exam	40.00		
Mid- Exam	25.00		
Participation	10.00		
Practi. Exam	10.00		
Quizzes	5.00		

