

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	2
Teaching Assistant	Ahmed Naguib Abdelaziz Abdelaziz Ghoneim	

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 -	Asses 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		

