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 -	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		