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
Professor	Tamer Fathy Fathallah Ahmed Soror	1
Teaching Assistant	AHMED NAGUIB ABDELAZIZ ABDELAZIZ GHONIM	

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, and Traverse 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 -	Define basic concepts of surveying operations
2 -	Recognize 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 -	Derive different solutions for distance measurement obstacles
2 -	Differentiate between area computational techniques
3 -	Deal with traverse calculations

c.Professional and Practical Skills: :

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

d.General and Transferable Skills: :

1 -	Gain team-working skills
2 -	Practice writing and presentation for surveying observations and results.

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Introduction	4	3	1
Distance measurement operations	10	8	2
Usage of scales for mapping	4	3	1
Surveying for mapping	6	5	1
Computation of coordinates	4	3	1
Area Computation	6	5	1
Basic Concept of Theodolite	4	3	1
Angular measurements using theodolite	12	8	4
Traverse computations	10	7	3

Teaching And Learning Methodologies :

Interactive Lecture
Discussion/ Problem Solving
Experimental Learning

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		