FUTURE UNIVERSITY IN EGYPT جامعة المستقبل

Faculty of Engineering & Technology

Petroleum Reservoir Laboratory

Information :

Course Code :	PE 304	**Level :**	Undergraduate	**Course Hours :**	1.00- Hours

Department : Department of Petroleum Engineering

Instructor Information :

Title	Name	Office hours
Lecturer	Mohamed Ghareeb Moustafa Ahmed	1
Lecturer	Mostafa Magdy El Sayed Abd El Hafiz	
Assistant Lecturer	YOUSSEF ELSAYED ABDELHAFEZ KANDIEL	

Area Of Study :

Understand the importance of the reservoir rock and fluid properties in petroleum engineering practice

Description :

Core analysis determination of intensive properties of crude oil and its products; equipment and methods used to obtain petroleum reservoir information.

Course outcomes :

a.Knowledge and Understanding: :	
1 -	Demonstrate various rock and fluid properties.
2 -	Acquire all the skills needed to achieve all experiments.
3 -	Recognize all different methods to be used to measure reservoir rock properties.
b.Intellectual Skills: :	
1 -	Analyse lab tests results to develop understanding of reservoir rock and fluid properties.
2 -	Interpret the different results.
c.Professional and Practical Skills: :	
1 -	Determine the physical properties of reservoir rocks and fluids.
2 -	Perform practical application of the lab data.
d.General and Transferable Skills: :	
1 -	work through a team work.
2 -	Communicate effectively.

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Core sampling and plug properties	4	4	

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Laboratory measurements of porosity, permeability, fluid saturation, capillary pressure and interfacial tension	8	8	
Reservoir fluid properties characterization	6	6	
Laboratory PVT Study	6	6	
PVT report and analysis	6	6	

Teaching And Learning Methodologies :

Discussion

Experiential Learning

Course Assessment :

Methods of assessment	Relative weight %	Week No	Assess What
Lab workshop	20.00		
Report & Assignment	10.00		
Written Exams	70.00		

Course Notes :

Available plot files + handouts.

Recommended books :

Petrophysics theory and practice of measuring
Reservoir Rock and fluids transport properties, By Djebblu Tiab, and Erle G. Donalson

Periodicals :

www.corelab.com

Web Sites :

www.corelab.com