FUTURE UNIVERSITY IN EGYPT
جامعة المستقبل

Faculty of Engineering & Technology

Reservoir Characterization

Information :

Course Code :	PET 512	**Level :**	Undergraduate	**Course Hours :**	3.00- Hours

Department : Department of Petroleum Engineering

Instructor Information :

Title	Name	Office hours
Lecturer	Mohamed Alaa Eldin Mohamed Abdelbakey	16
Assistant Lecturer	YOUSSEF ELSAYED ABDELHAFEZ KANDIEL	

Area Of Study :

The course aims to expand the scope of knowledge of the petroleum engineer to include one of the following topics:
Collecting and analysing field data-Quantitative interpretation for well loggingIndicating porosity, Permeability and saturation-Methods of resistivityElectromagnetic production logging and production logging.

Description :

Principles and techniques of petroleum reservoir characterization. Subsurface data from geological and engineering sources. Univariate and bivariate characterization Estimation techniques. Reserve estimation methods.

Course outcomes :

a.Knowledge and Understanding: :	
1 -	Explain how to collect field data
2 -	Describe how to Analyze field data
3 -	Identify the qualitative interpretation for well logging.
b.Intellectual Skills: :	
1 -	Select the appropriate technique to collect data
2 -	Detect porosity, permeability and saturation
3 -	Identify method of resistivity
c.Professional and Practical Skills: :	
1 -	Calculate porosity, permeability and saturation
2 -	Perform the electromagnetic production logging and production logging
d.General and Transferable Skills: :	
1 -	Ability to work in team
2 -	Ability to interpret available different types of production and artificial lift performance.
3 -	Report writing skills and presentation skills

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Collecting and analyzing field data	15	9	6
Quantitative interpretation for well logging	15	9	6
Indicating porosity, Permeability and saturation	15	9	6
Methods of resistivity	12	6	3
Electromagnetic production logging and production logging	15	9	6

Course Assessment :

Methods of assessment	Relative weight %	Week No	Assess What
1st Midterm	15.00		
2 nd Midterm	15.00		
Assignment	10.00		
Attendenance	10.00		
Final Exam	40.00		
Performance	10.00		

Recommended books :

1. Text Book: Reservoir Characterization: Recent Advances, Richard A. Schatzinger / John F. Jordan
2. Lecture notes on the course Available pdf files + handouts
3. Recommended Readings: Onepetro.org, sciencedirect.com, aga.org