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 :

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 logging-
Indicating porosity, Permeability and saturation-Methods of resistivity-
Electromagnetic 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 measuring electric rock properties
c.Professional and Practical Skills: :	
1 -	Calculate porosity, permeability and saturation
2 -	Perform electromagnetic production logging and production logging
d.General and Transferable Skills: :	
1 -	Work in team
2 -	Interpret available different types of production and artificial lift performance
3 -	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 measuring electric rock properties	15	9	6
Electromagnetic production logging and production logging	15	9	6

Teaching And Learning Methodologies :
Interactive Lecturing
Discussion
Problem solving
Experiential Learning

Course Assessment :			
Methods of assessment	**Relative weight %**	**Week No**	**Assess What**
1st Midterm	15.00		
2nd Midterm	15.00		
Assignment	20.00		
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 (technical papers): Onepetro.org, sciencedirect.com, aga.org