Faculty of Engineering & Technology

Depositional Systems

Information :

Course Code :	GEO 302	**Level :**	Undergraduate	**Course Hours :**	3.00- Hours

Department : Department of Petroleum Engineering

Instructor Information :

Title	Name	Office hours
Associate Professor	Mostafa Abdou Roshdy Ahmed Teama	8
Associate Professor	Mostafa Abdou Roshdy Ahmed Teama	8
Assistant Lecturer	YOUSSEF ELSAYED ABDELHAFEZ KANDIEL	
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Area Of Study :

Expand the scope of knowledge of the petroleum engineer to include the importance Environment of Deposition. This should include Origin and classification of sedimentary rocks - Weathering ï Erosion -Residual deposits and soils. It also includes the Carbonate deposits: their composition and classification -Siliciclastic deposits: their composition and classification.

Description :

Analysis and interpretation of seismic, Sea floor image, well logs (including borehole image logs), Core and outcrop characteristics of the component elements of deep water reservoirs and emphasizes internal architecture as related to reservoir performance. Geologic control on reservoir equality, new concepts in understanding transport and depositional processes, geologic modeling and deepwater petroleum systems.

Course outcomes :

a.Knowledge and Understanding: :	
1 -	Define Weathering, erosion and lithification
2 -	Define Origin and classification of sedimentary rocks
3 -	Explain Rudaceous deposits: their composition and classification
4 -	Explain Arenaceous deposits: their composition and classification
5 -	Describe Clay minerals
6 -	Explain Carbonate rocks: limestone and dolostone
7 -	Illustrate Environment of Deposition
8 -	Recognize Continental, Transitional, and Marine systems
b.Intellectual Skills: :	
1 -	Solve problems related to classification of sedimentary rocks, Rudaceous and Arenaceous deposits
2 -	Apply theory of the sedimentary features and their implications

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c.Professional and Practical Skills: :	
1 -	Practice identifying the sedimentary rock in hand samples
2 -	Compute Mechanical analysis
3 -	Practice identification of probable depositional systems
d.General and Transferable Skills: :	
1 -	Work in team and solve problems
2 -	Search for information and engage in long-life learning disciplines
3 -	Communication Effectively

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Origin and classification of sedimentary rocks	12	9	3
Sedimentary Structures	8	6	2
Continental depositional systems	12	9	3
Transitional depositional systems	8	6	2
Marine depositional systems	12	9	3
Sedimentary Basins	8	6	2

Teaching And Learning Methodologies :

- Interactive Lecturing
- Discussion
- Problem Solving
- Experiential Learning

Course Assessment :

Methods of assessment	Relative weight %	Week No	Assess What
Final exam	40.00		
In Class Quizzes	10.00		
Lab	10.00		
Mid-Term exams	30.00		
Participations	10.00		

Recommended books :

Gary Nichols, 2009. Sedimentology and Stratigraphy, 2nd edition. Wiley Blackwell, 433p.

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