

Faculty of Engineering & Technology
Petroleum Economics and Asset Valuation

Information :

Course Code : PE 505

Level : Undergraduate

Course Hours : 2.00- Hours

Department : Department of Petroleum Engineering

Instructor Information :

Title	Name	Office hours
Professor	Ismail Shaaban Ismail Mahgoub	1
Professor	Ismail Shaaban Ismail Mahgoub	1
Lecturer	Mostafa Magdy El Sayed Abd El Hafiz	
Lecturer	Alaa Mohamed Ali Ali	9
Teaching Assistant	Akram Rabie Hamed Ragheb Tobar	
Teaching Assistant	Mohamed Osama Mohamed Abbas	
Teaching Assistant	Abdelrahman Adel Abdullah Abdelghany Kandil	
Teaching Assistant	Reham Shawket Mostafa Taha Khalaaf	

Area Of Study :

The Main Goals of this course are preparing students to:

Enrich knowledge for the difference between Petroleum macroeconomic and Petroleum microeconomic.

Demonstrate knowledge and methods of predict, forecast, analysis and estimated the factors affecting on the international petroleum activities.

Train to predict oil and gas prices in the international petroleum markets.

Description :

Uncertainty in the estimation of oil and gas reserves; tangible and intangible investment costs; depreciation; evaluation of producing properties; federal income tax considerations; chance factor and risk determination. Petroleum economic evaluation software is introduced.

Course outcomes :

a. Knowledge and Understanding :

1 -	Describe economic evaluation and economic analyses for petroleum projects and decision in different situation
2 -	State the different economics indicator in evaluation petroleum project
3 -	Explain the evaluation of oil projects decisions related to the drilling activities, exploration and development activities
4 -	Illustrate the economic methods for value estimation of petroleum wells.
5 -	List the different factor effected in International oil market
6 -	Select International oil organization

7 -	Classify the factors effect in the international oil market and how the price determined in international oil market
b.Intellectual Skills: :	
1 -	Demonstrate different techniques for evaluate the petroleum decisions related to bid round development decision, drilling and completion well.
2 -	Apply the different methods for Valuation of Petroleum Projects
c.Professional and Practical Skills: :	
1 -	Use software tools for estimated . \dot{A} cash flow . \dot{A} net cash flow . \dot{A} net present value to evaluate the petroleum assets and projects.
2 -	Use software tools for estimated internal rate of return (IRR), payback period . \dot{A} discounted payback and the profitability index.
d.General and Transferable Skills: :	
1 -	Use efficiently IT capabilities.

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Introduction to Petroleum Microeconomics and petroleum macroeconomics.	2	2	4
Cash flow . \dot{A} discounted cash flow for petroleum projects.	2	2	4
pay out / payback period. / discounted pay back	2	2	4
Economic Yardsticks for petroleum projects- Present value, net present value, IRR (internal rate of return), Rate of investment, and Profitability index	4	4	8
Discovery and well economics valuation	4	4	8
Oil and Gas Decision to Complete a Well	2	2	4
Assets valuation	4	4	8
Oil Peak and Hubbert Curve	2	2	4
Oil Economics In International Market	4	4	8
Forecasting	4	4	8

Teaching And Learning Methodologies :

Interactive Lecturing
Discussion

Course Assessment :

Methods of assessment	Relative weight %	Week No	Assess What
Assignment	10.00		
Final exam	40.00		
Mid-Term exams	30.00		
Participation	10.00		
Quizzes	10.00		

