RESERVOIR GEOLOGY FOR PETROLEUM ENGINEERS

GEO010

COURSE DESCRIPTION

Gain a comprehensive understanding of reservoir geology's vital role in petroleum engineering. This course explores the geological and engineering factors affecting reservoir evaluation and modeling. Learn how to effectively integrate geological data with engineering activities and make informed decisions. Topics include reservoir variability, seismic methods, reservoir characterization, traps, and reservoir development strategies. Ideal for reservoir engineers, geologists, geophysicists, and drilling engineers seeking to enhance their skills in reservoir geology and collaborate effectively in multidisciplinary teams.

COURSE GOAL

To enhance the participants' knowledge, skills and abilities necessary to study the geological and engineering factors to evaluate and model the reservoir formations.

COURSE OBJECTIVES

By the end of this course, participant will be able to:

- Foster collaboration: Promote effective teamwork and communication between reservoir engineers and geologists to enhance collaboration in evaluating and modeling reservoir formations.
- Emphasize reservoir geology: Highlight the importance of reservoir geology in evaluating and modeling formations, providing petroleum engineers with essential geological principles.
- Understand geological impact: Explore how geological factors influence engineering activities throughout the reservoir lifecycle.
- Introduction to seismic methods: Provide an overview of seismic techniques used in reservoir characterization.
- Study reservoir types: Examine characteristics of carbonate, sandstone, and non-marine reservoirs.
- Enhance reservoir characterization: Understand how diagnosis and reservoir properties impact reservoir characterization.
- Comprehend traps and structural geology: Gain knowledge of structural geology and its role in trapping hydrocarbons.
- Utilize logs and cross sections: Apply electric logs and cross sections in reservoir evaluation.
- Integrate data for analysis: Learn to combine geological, geophysical, and engineering data to identify reservoir rock properties.
- Develop reservoir strategies: Discuss different approaches to reservoir development.

WHO SHOULD ATTEND

- Geologists.
- Geo-scientists.
- Petroleum engineers.

COURSE DURATION

5 Working Days

COURSE OUTLINES

- The reservoir in perspective.
- Why petroleum reservoirs of same type are different?
- How reservoirs vary in size, configuration, distribution etc...?
- How geological factors affect engineering activities?
- Introduction to the seismic method.
- Carbonate reservoirs & Sandstone reservoirs.
- Non-marine reservoirs.
- How does diagnosis affect reservoir character?
- Reservoir properties.
- Structural geology & traps.
- Use of electric logs.
- Cross sections & their significance.
- How integrated geological geophysical, and engineering data / studies are used in identify & predicting reservoir rock properties.
- Reservoir development strategies.