



Foundations of Petrophysics - FPP

COURSE

About the Course

Petrophysics is fundamental to all aspects of the petroleum business. Principles, applications, and integration of petrophysical information for reservoir description will be discussed in depth. Through a combination of class discussion and exercises/workshops, participants will learn how to conduct competent quick-look evaluations. Using data from open hole logs, logging-while-drilling, and core data you will evaluate porosity, permeability, and saturation in a variety of reservoirs. Knowing how to integrate petrophysical information with other data sources will improve participants' ability to assess technical risk when examining hydrocarbon opportunities.

[This course is also available through e-learning via PetroAcademy.](#)

"Liked walking through how to read the logs and what they measure. It's very useful to understand how to use the logs in combination to generate understanding about the logged intervals." - Graduate Reservoir Engineer, United States

"All subjects received ample attention and the integration of subjects, methods, log-types, etc. was excellent. Exercises were great." - Geologist, Denmark

Target Audience

Geoscientists and engineers with less than twelve months' experience using petrophysical data and other technical staff at all experience levels wanting a fundamental background in the petrophysics discipline.

You Will Learn

Participants will learn how to:

- Understand and apply at a basic level the theory and operation of major petrophysical tools
- Calibrate porosity and permeability values from core and log sources for improved saturation calculations
- Apply basic open hole logging, borehole seismic, image, and LWD/MWD
- Analyze and integrate log, core, geoscience, and engineering well data for well and field development projects
- Select petrophysical tool combinations for specific applications
- Assess the impact of petrophysical analyses on technical uncertainty estimates of reservoirs

Course Content

- Fundamental concepts of petrophysics
- Depositional systems and petrophysical rock parameters
- Nature of porosity and permeability
- Basic rock properties; theory and quicklook techniques
- Mudlogging
- Core analysis, acquisition, interpretation, and quality checks
- Theory and basics of resistivity, radioactivity, acoustic tools
- LWD/MWD versus open hole logging
- Determination of rock types using core and logs
- Petrophysical impact on economic uncertainty
- Evolving petrophysical technologies
- Overview of cased hole logging

Product Details

Categories: [Upstream](#)

Disciplines: [Petrophysics](#) [Unconventional Resources](#)

Levels: [Foundation](#)

Product Type: [Course](#)

Formats Available: [In-Classroom](#)

Instructors: [Robert \(Bob\) Lippincott](#) [John Sneider](#) [PetroSkills Specialist](#)