



## Direct Hydrocarbon Indicators (DHI) and AVO - Virtual, Blended Short Course

### COURSE

#### About the Course

This short course is a blend of self-paced online modules, virtual instructor-led lectures, problem assignments, virtual instructor-led problem debriefs with real-world application examples and knowledge sharing.

Over two days, this course includes approximately 2 hours of virtual, instructor-led training, plus 4 hours of e-Learning. [See full schedule](#)

This PetroAcademy short course is designed to familiarize anyone using seismic data with the basics of what AVO and DHIs are and how they are used in an interpretation. One of the key goals is to explain the large and confusing amount of jargon that is used by the geophysical community when they use seismic data.

This short course is part of our Basic Geophysics (BGP) program.

[See the full BGP Short Course listing here](#)

#### Target Audience

Geoscientists, engineers, team leaders, geoscience technicians, asset managers, and anyone involved in using seismic data that needs to understand and use this data at a basic level or to communicate with others that use it.

#### You Will Learn

Participants will learn how to:

- Explain the effect of hydrocarbons in the seismic data
- Detect hydrocarbons in the seismic data
- Describe rock physics
- Define amplitude variation with offset/angle (AVO/AVA)
- Make approximations to the Zoeppritz equations, including Aki-Richards equation and Shuey's equation
- Identify the Rutherford and Williams classification
- Describe slope, intercept, and the fluid line
- Describe the methods for prestack inversion, including Simultaneous Inversion; Elastic Impedance and Extended Elastic Impedance; Lambda Rho and Mu Rho

## Course Content

### BLENDED LEARNING WORKSHOP STRUCTURE

This program is comprised of the following activities:

Activity	Hours (Approx)	Subjects
Day 1		
e-Learning	4.00	Types of Direct Hydrocarbon Indicators
		Detecting Direct Hydrocarbon Indicators
		Rock Physics
		AVO Effects and Anomalies
		Prestack Inversion
		Amplitude vs. Offset Workflow Reading
Day 2		
Virtual Instructor-Led Session	2.5	Instructor Debrief / Problems

### Product Details

Categories: [Upstream](#)

Disciplines: [Geophysics](#)

Levels: [Basic](#)

Product Type: [Course](#)

Formats Available: [Virtual](#)

Instructors: [Tom Temples](#)

