GP-205: Seismic Velocities, Inversion & Rock Physics



Who Should Attend

This course is intended for Processing and Interpretation Geophysicists as well as Petrophysicists.

Overview

The course covers all types of seismic velocities and their applications in seismic data processing, inversion/modeling, interpretation and rock physics.

COURSE CONTENTS

- Seismic Velocities in Rocks, P&S Wave Velocities & Elastic Properties of Rocks
- Velocity Analysis \ CDP Sorting \ NMO in Seismic Data Processing
- Dix Equation for RMS, Average and Interval Velocity Conversions
- Spatial, Temporal and Horizon Velocity Interpolation \ Smoothing
- Velocity Database & Regional Average Velocity Function Computation
- Interactive Velocity Function Editing \ Iso-Velocity Contour Maps
- VSP \ Check Shot Surveys \ Sonic Logs & Synthetic Seismogram
- Velocity Inversion and Modeling
- Amplitude Versus Offset\Angle (AVO\AVA)
- Conversions between IQueue, ProMax, GeoQuest & Landmark Velocity Formats

SOFTWARE: The following software will be provided to the participants.

- Software for Display, Interactive Editing, Dix Conversions, Interpolation & Smoothing of Velocity functions
- Velocity Format Conversion Programs written in Visual OIL