GEOSCIENCES
Geophysics

@ **E-131**

▲ Who should attend?

All geophysicists.

▲ Duration

48 h over 12 weeks

▲ Dates & Location

January 12 - April 03, 2009
At distance

Sept. 14 - Dec. 04, 2009
At distance

▲ Registration

Fees: **€ 7,700**

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▲ Course Coordinator

Jacques NEGRON

▲ Blended Learning Coordinator

Catherine ULRICH

Ref. **GEP / BLPROC**

ifp ensm
FORMATION INDUSTRIE
IFP ■ TRAINING

SEISMIC PROCESSING (IN BLENDED LEARNING)*

COURSE OBJECTIVES

To be able to understand the main elements of a seismic processing report, to evaluate the quality of a processing sequence and to communicate appropriately with processing geophysists.

Upon completion of this training course, participants will be able to:

- identify the important phases in seismic processing and their impact on the final image,
- identify the sources of potential error on observed amplitude variations,
- list the uncertainties related to processing and establish their impact on the interpretation,
- perform a simple analysis of a processing report,
- analyze the fundamental QCs performed during processing,
- diagnose the quality of the image to interpret.

COURSE CONTENT

MATHEMATIC TOOLS (Free access all along the session) — **8 hours**

Convolution, Correlation, Fourier Transform
Linear Systems, Phrase, Sampling

INTRODUCTION - GEOMETRY — **8 hours**

Review of surveying, Gathering, Binning and repositioning

VELOCITIES — **8 hours**

Types of velocities, NMO corrections, Velocity analysis, Velocity Interpretation, Velocity in multiple attenuations

AMPLITUDE & FILTERING — **8 hours**

Amplitude decay, Scaling, Amplitude recovery and equalization, Preserved amplitude processing, Stacking and filtering, Deconvolution

MIGRATION — **8 hours**

Introduction to migration, Wave front and diffraction, Ray tracing, Kirchhoff summation migration, Finite differente migration, F/K migration, Partial prestack migration, Limits of the migration methods, Migration effects

TOOL BOX — **8 hours**

Multiple attenuations, Noise attenuation

A case-study is used as a red thread to the training and represents half of the training duration.
** See pedagogical methods applied page 5.*