



HARNESS THE POWER
OF KNOWLEDGE

**Seismic Acquisition and
Processing: Specifications and
Contract**

TRAIN



Introduction

Seismic acquisition and processing play a critical role in the exploration and development of hydrocarbon resources

Seismic data provides valuable insights into the subsurface structure and potential hydrocarbon reservoirs. This comprehensive 5-day professional training course will equip you with the essential knowledge and skills to effectively manage and execute seismic acquisition and processing projects, ensuring high-quality data acquisition and processing within budget and schedule constraints.

Course Objectives

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

- Understand the fundamental principles of seismic acquisition and processing
- Develop and implement seismic acquisition specifications that meet project objectives
- Manage the seismic acquisition process, including contractor selection, planning, and execution
- Oversee seismic data processing, including quality control and interpretation
- Negotiate and manage seismic acquisition and processing contracts effectively

Course Agenda

Day 1: Introduction to Seismic Acquisition and Processing

- Delve into the history, principles, and applications of seismic acquisition and processing in hydrocarbon exploration
- Explore the different types of seismic surveys, including 2D, 3D, and 4D seismic
- Understand the seismic acquisition process, including source initiation, data recording, and navigation
- Discuss the seismic processing workflow, including data preprocessing, velocity model building, and stacking

Day 2: Seismic Acquisition Specifications

- Develop seismic acquisition specifications tailored to project objectives
- Define seismic acquisition parameters, such as source type, array size, and line spacing
- Consider environmental and regulatory requirements in seismic acquisition planning
- Prepare seismic acquisition proposals and negotiate with contractors

Day 3: Seismic Acquisition Management

- Manage the seismic acquisition process from planning to execution
- Select and manage seismic contractors effectively
- Oversee seismic acquisition operations, including logistics, health and safety, and quality control
- Monitor and manage project costs and schedule

Day 4: Seismic Data Processing

- Understand the seismic processing workflow, including data preprocessing, velocity model building, and stacking
- Oversee the seismic data processing phase, including quality control and interpretation
- Identify and resolve seismic data processing issues
- Interpret seismic data to identify potential hydrocarbon reservoirs

Day 5: Seismic Acquisition and Processing Contracts

- Understand the key elements of seismic acquisition and processing contracts
- Negotiate and manage seismic acquisition and processing contracts effectively
- Resolve contractual disputes and manage project risks
- Stay updated on industry standards and best practices in seismic contracting

Who Should Attend

This course is designed for:

- Geoscientists and engineers involved in seismic acquisition and processing projects
- Project managers and decision-makers responsible for seismic surveys and data quality

- Procurement professionals involved in tendering, contracting, and managing seismic services
- Seismic contractors seeking to enhance their understanding of client requirements and project management
- Students and professionals interested in pursuing a career in seismic acquisition and processing

Course Benefits

- Develop a comprehensive understanding of seismic acquisition and processing principles, techniques, and applications
- Gain hands-on experience in developing seismic acquisition specifications and managing seismic projects
- Enhance your ability to oversee the seismic acquisition and processing workflow, ensuring data quality and project success
- Understand the legal and contractual aspects of seismic acquisition and processing projects
- Stay updated on the latest advancements and techniques in seismic acquisition and processing technologies and industry practices