

**COURSE OVERVIEW DE0059**  
**Seismic Interpretation & Structural Styles**

**Course Title**

Seismic Interpretation & Structural Styles

**Course Date/Venue**

Session 1: May 26-30, 2025/Fujairah Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE

Session 2: November 16-20, 2025/Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE



**Course Reference**

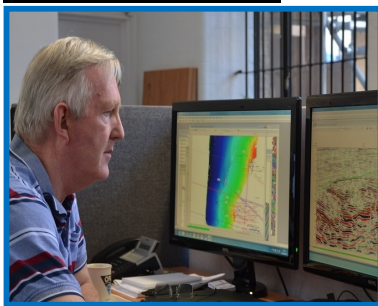
DE0059

**Course Duration/Credits**

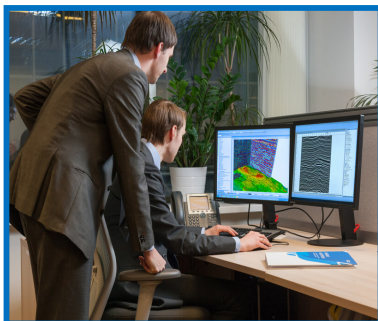
Five days/3.0 CEUs/30 PDHs



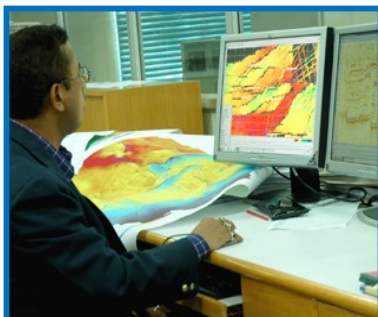
**Course Description**



***This practical and highly-interactive course includes various practical sessions and exercises. Theory learnt will be applied using our state-of-the-art simulators.***



This course is designed to provide participants with a detailed and up-to-date overview of Seismic Interpretation and Structural Styles. It covers the role of seismic interpretation in exploration and production; the basic concepts in seismic data processing and interpretation; the different types of seismic data, including 2D and 3D seismic data; preparing and processing seismic data for techniques, data quality control, data conditioning, and data enhancement; the seismic data processing workflows, statics correction, noise reduction, and velocity analysis; and interpreting seismic data for techniques, including horizon interpretation, fault interpretation, and structure interpretation.



Further, the course will also discuss the seismic interpretation workflows, seismic attribute analysis and seismic inversion; the different types of structural styles, covering extensional, compressional, strike-slip, and shear structures; the various techniques for identifying structural styles in seismic data that include mapping and cross-sectional analysis; characterizing reservoirs using seismic data, seismic facies analysis, seismic rock physics, and seismic inversion; and the reservoir characterization workflows, seismic-based volumetrics, seismic-based fluid identification, and seismic-based reservoir property prediction.

During this interactive course, participants will learn the industry-standard seismic interpretation software and its features and capabilities; interpreting complex seismic data for advanced techniques, covering time-lapse (4D) seismic, prestack inversion, and prestack time migration; and the advanced seismic interpretation workflows, including time-lapse seismic interpretation, full-waveform inversion, and rock physics modeling.

### **Course Objectives**

Upon the successful completion of this course, each participant will be able to:-

- Apply and gain an in-depth knowledge on seismic interpretation and structural styles
- Discuss the role of seismic interpretation in exploration and production and the basic concepts in seismic data processing and interpretation
- Identify the different types of seismic data, including 2D and 3D seismic data
- Carryout techniques for preparing and processing seismic data, including data quality control, data conditioning, and data enhancement
- Illustrate seismic data processing workflows, including statics correction, noise reduction, and velocity analysis
- Employ techniques for interpreting seismic data, including horizon interpretation, fault interpretation, and structure interpretation
- Describe seismic interpretation workflows, including seismic attribute analysis and seismic inversion
- Recognize the different types of structural styles, including extensional, compressional, strike-slip, and shear structures
- Apply various techniques for identifying structural styles in seismic data that include mapping and cross-sectional analysis
- Characterize reservoirs using seismic data, including seismic facies analysis, seismic rock physics, and seismic inversion
- Discuss reservoir characterization workflows, seismic-based volumetrics, seismic-based fluid identification, and seismic-based reservoir property prediction
- Identify industry-standard seismic interpretation software and its features and capabilities
- Carryout advanced techniques for interpreting complex seismic data, covering time-lapse (4D) seismic, prestack inversion, and prestack time migration
- Illustrate advanced seismic interpretation workflows, including time-lapse seismic interpretation, full-waveform inversion, and rock physics modeling

### **Exclusive Smart Training Kit - H-STK®**



Participants of this course will receive the exclusive “Howard Smart Training Kit” (H-STK®). The H-STK® consists of a comprehensive set of technical content which includes **electronic version** of the course materials conveniently saved in a **Tablet PC**.

### **Who Should Attend**

This course provides an overview of all significant aspects and considerations of seismic interpretation and structural styles for all geoscientists, geophysicists, seismic interpreters, seismic acquisition and processing specialists, reservoir engineers and project managers.

### **Training Methodology**

All our Courses are including **Hands-on Practical Sessions** using equipment, State-of-the-Art Simulators, Drawings, Case Studies, Videos and Exercises. The courses include the following training methodologies as a percentage of the total tuition hours:-

- 30% Lectures
- 20% Practical Workshops & Work Presentations
- 30% Hands-on Practical Exercises & Case Studies
- 20% Simulators (Hardware & Software) & Videos

In an unlikely event, the course instructor may modify the above training methodology before or during the course for technical reasons.

### **Course Fee**

**US\$ 8,000** per Delegate + **VAT**. This rate includes H-STK® (Howard Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

### **Accommodation**

Accommodation is not included in the course fees. However, any accommodation required can be arranged at the time of booking.

**Course Certificate(s)**

Internationally recognized certificates will be issued to all participants of the course who completed a minimum of 80% of the total tuition hours.


**Certificate Accreditations**

Certificates are accredited by the following international accreditation organizations: -



British Accreditation Council (BAC)

Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. BAC is the British accrediting body responsible for setting standards within independent further and higher education sector in the UK and overseas. As a BAC-accredited international centre, Haward Technology meets all of the international higher education criteria and standards set by BAC.

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The International Accreditors for Continuing Education and Training (IACET - USA)

Haward Technology is an Authorized Training Provider by the International Accreditors for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this authority, Haward Technology has demonstrated that it complies with the **ANSI/IACET 2018-1 Standard** which is widely recognized as the standard of good practice internationally. As a result of our Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for its programs that qualify under the **ANSI/IACET 2018-1 Standard**.

Haward Technology’s courses meet the professional certification and continuing education requirements for participants seeking **Continuing Education Units (CEUs)** in accordance with the rules & regulations of the International Accreditors for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

Haward Technology Middle East will award **3.0 CEUs** (Continuing Education Units) or **30 PDHs** (Professional Development Hours) for participants who completed the total tuition hours of this program. One CEU is equivalent to ten Professional Development Hours (PDHs) or ten contact hours of the participation in and completion of Haward Technology programs. A permanent record of a participant’s involvement and awarding of CEU will be maintained by Haward Technology. Haward Technology will provide a copy of the participant’s CEU and PDH Transcript of Records upon request.

**Course Instructor(s)**

This course will be conducted by the following instructor(s). However, we have the right to change the course instructor(s) prior to the course date and inform participants accordingly:



**Mr. Stan Constantino, MSc, BSc, is a Senior Petroleum & Reservoir Engineer with over 35 years of Offshore & Onshore extensive experience within the Oil, Gas & Petroleum industries. His area of expertise include Reserves & Resources, Reserves Estimation & Uncertainty, Reservoir Characterization, Unconventional Resource & Reserves Evaluation, Oil & Gas Reserves Estimation, Methods for Aggregation of Reserves & Resources, Fractured Reservoir Classification & Evaluation, Sequence Stratigraphy, Petrophysics & Rock Properties, Seismic Technology, Geological Modelling, Water Saturation,**

**Crude Oil & Natural Gas Demand, Exploration Agreements & Financial Modelling, Seismic Survey Evaluation, Exploration Well Identification, Field Production Operation, Field Development Evaluation, Crude Oil Marketing, Core & Log Data Integration, Core Logging, Advanced Core & Log Integration, Well Logs & Core Analysis, Advanced Petrophysics/Interpretation of Cased Hole Logs, Cased Hole Formation Evaluation, Cased Hole Formation Evaluation, Cased Hole Evaluation, Cased-Hole Logging, Applied Production Logging & Cased Hole & Production Log Evaluation, Cased Hole Logging & Formation Evaluation, Open & Cased Hole Logging, Screening of Oil Reservoirs for Enhanced Oil Recovery, Enhanced Oil Recovery, Enhanced Oil Recovery Techniques, Petroleum Economic Analysis, Oil Industry Orientation, Oil Production & Refining, Crude Oil Market, Global Oil Supply & Demand, Global Oil Reserves, Crude Oil Types & Specifications, Oil Processing, Oil Transportation-Methods, Oil & Gas Exploration and Methods, Oil & Gas Extraction, Technology Usage in Industrial Security; Upstream, Midstream & Downstream Operations; Oil Reservoir Evaluation & Estimation, Oil Supply & Demand, Oil Contracts, Government Legislation & Oil Contractual Agreements, Oil Projects & Their Feasibility (revenue and profitability), Water Flooding, Reservoir Souring & Water Breakthrough, Reservoir Performance Using Classical Methods, Fractured Reservoir Evaluation & Management, Reservoir Surveillance & Management, Reservoir Engineering & Simulation, Reservoir Monitoring, Pressure Transient Testing & Reservoir Performance Evaluation, Reservoir Characterization, Reservoir Engineering Applications with ESP and Heavy Oil, Reservoir Volumetrics, Water Drive Reservoir, Reserve Evaluation, Rock & Fluid Properties, Fluid Flow Mechanics, PVT Analysis, Material Balance, Darcy's Law & Applications, Radial Flow, Gas Well Testing, Natural Water Influx, EOR Methods, Directional Drilling, Drilling Production & Operations, Field Development & Production of Oil & Gas, Wireline Logging, Mud Logging, Cased Hole Logging, Production Logging, Slick Line, Coil Tubing, Exploration Wells Evaluation, Horizontal Wells, Well Surveillance, Well Testing, Design & Analysis, Well Testing & Oil Well Performance, Well Log Interpretation (WLI), Formation Evaluation, Well Workover Supervision, Pressure Transient Analysis and Petrophysical Log Analysis. Currently, he is the CEO & Managing Director of Geo Resources Technology wherein he is responsible in managing the services and providing technical supports to underground energy related projects concerning field development, production, drilling, reservoir engineering and simulation.**

Throughout his long career life, Mr. Stan has worked for many international companies such as the **Kavala Oil, North Aegean Petroleum Company and Texaco Inc., as the Managing Director, Operations Manager, Technical Trainer, Training Consultant, Petroleum Engineering & Exploration Department Head, Assistant Chief Petroleum Engineer, Reservoir Engineer, Resident Petroleum Engineer, Senior Petroleum Engineer and Petroleum Engineer** wherein he has been managing the evaluation of exploration wells, reservoir simulation, development training, production monitoring, wireline logging and well testing including selection and field application of well completion methods.

Mr. Stan has a **Master's degree in Petroleum Engineering** and a **Bachelor's degree in Geology** from the **New Mexico Institute of Mining & Technology (USA)** and from the **Aristotelian University (Greece)** respectively. Further, he is a **Certified Instructor/Trainer, a Certified Internal Verifier/Assessor/Trainer** by the **Institute of Leadership of Management (ILM)** and a member of the **Society of Petroleum Engineers, USA (SPE), Society of Well Log Professional Analysts, USA (SPWLA)** and **European Association of Petroleum Geoscientists & Engineers (EAGE)**. Moreover, Mr. Stan published numerous scientific and technical papers and delivered various trainings, courses and workshops worldwide.

**Course Program**

The following program is planned for this course. However, the course instructor(s) may modify this program before or during the course for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

**Day 1**

0730 – 0800	<i>Registration &amp; Coffee</i>
0800 – 0815	<i>Welcome &amp; Introduction</i>
0815 – 0830	<b>PRE-TEST</b>
0830 – 0900	<b>Introduction to Seismic Interpretation</b>
0930 – 0945	<i>Break</i>
0945 – 1030	<b>Seismic Interpretation &amp; its Role in Exploration &amp; Production</b>
1030 – 1130	<b>Basic Concepts in Seismic Data Processing &amp; Interpretation</b>
1130 – 1230	<b>Different Types of Seismic Data, Including 2D &amp; 3D Seismic Data</b>
1230 – 1245	<i>Break</i>
1245 – 1420	<b>Seismic Data Processing</b>
1420 – 1430	<b>Recap</b>
1430	<i>Lunch &amp; End of Day One</i>

**Day 2**

0730 – 0930	<b>Techniques for Preparing &amp; Processing Seismic Data, Including Data Quality Control, Data Conditioning &amp; Data Enhancement</b>
0930 – 0945	<i>Break</i>
0945 – 1030	<b>Seismic Data Processing Workflows, Including Statics Correction, Noise Reduction &amp; Velocity Analysis</b>
1030 – 1130	<b>Seismic Interpretation Fundamentals</b>
1130 – 1230	<b>Techniques for Interpreting Seismic Data, Including Horizon Interpretation, Fault Interpretation &amp; Structure Interpretation</b>
1230 – 1245	<i>Break</i>
1245 – 1420	<b>Seismic Interpretation Workflows, Including Seismic Attribute Analysis &amp; Seismic Inversion</b>
1420 – 1430	<b>Recap</b>
1430	<i>Lunch &amp; End of Day Two</i>

**Day 3**

0730 – 0930	<b>Structural Styles in Seismic Interpretation</b>
0930 – 0945	<i>Break</i>
0945 – 1100	<b>Different Types of Structural Styles, Including Extensional, Compressional, Strike-Slip &amp; Shear Structures</b>
1100 – 1230	<b>Techniques for Identifying Structural Styles in Seismic Data, Including Mapping &amp; Cross-Sectional Analysis</b>
1230 – 1245	<i>Break</i>
1245 – 1420	<b>Reservoir Characterization</b>
1420 – 1430	<b>Recap</b>
1430	<i>Lunch &amp; End of Day Three</i>

**Day 4**

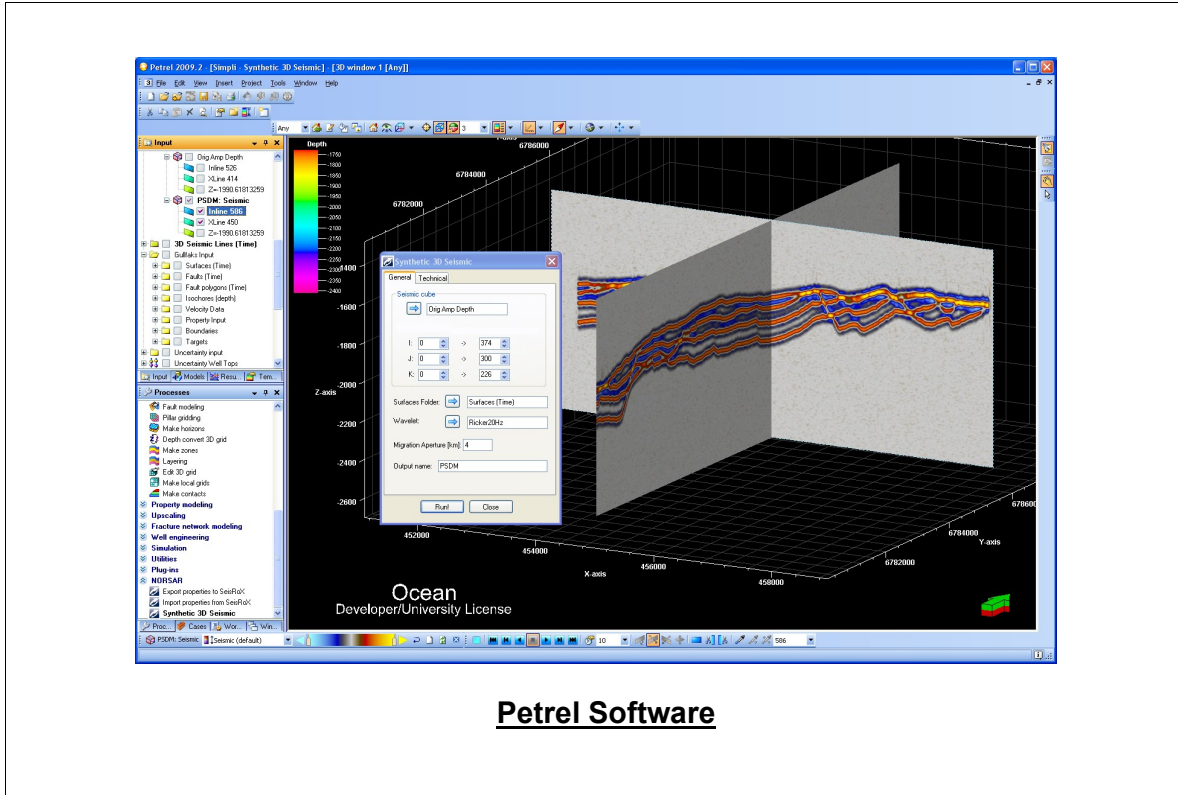
0730 – 0930	<b>Techniques for Characterizing Reservoirs Using Seismic Data, Including Seismic Facies Analysis, Seismic Rock Physics &amp; Seismic Inversion</b>
0930 – 0945	Break
0945 – 1100	<b>Reservoir Characterization Workflows, Including Seismic-Based Volumetrics, Seismic-Based Fluid Identification &amp; Seismic-Based Reservoir Property Prediction</b>
1100 – 1230	<b>Seismic Interpretation Case Studies</b> Analyzing Real-World Case Studies of Seismic Interpretation, Including Exploration and Appraisal, Field Development and Production, and Enhanced Oil Recovery and Carbon Capture • Evaluating the Impact of Seismic Interpretation on Exploration and Production Decision-Making, Including Reservoir Delineation, Reserve Estimation, and Production Optimization
1230 – 1245	Break
1245 – 1420	<b>Seismic Interpretation Software</b> Industry-Standard Seismic Interpretation Software, Including Petrel, Kingdom, and Landmark • Features and Capabilities of Seismic Interpretation Software, Including Horizon Interpretation, Fault Interpretation, and Structure Interpretation
1420 – 1430	<b>Recap</b>
1430	Lunch & End of Day Four

**Day 5**

0730 – 0930	<b>Advanced Seismic Interpretation Techniques</b>
0930 – 0945	Break
0945 – 1100	<b>Techniques for Interpreting Complex Seismic Data, Including Time-Lapse (4D) Seismic, Prestack Inversion &amp; Prestack Time Migration</b>
1100 – 1245	<b>Advanced Seismic Interpretation Workflows, Including Time-Lapse Seismic Interpretation, Full-Waveform Inversion &amp; Rock Physics Modeling</b>
1245 – 1300	Break
1300 – 1345	<b>Group Project &amp; Presentations</b> Group Project on Seismic Interpretation and Structural Styles • Presentation and Discussion of Group Project Results • Review of Best Practices and Tips for Successful Seismic Interpretation, Including Seismic Data Processing, Structural Style Analysis, and Reservoir Characterization
1345 – 1400	<b>Course Conclusion</b>
1400 – 1415	<b>POST-TEST</b>
1415 – 1430	Presentation of Course Certificates
1430	Lunch & End of Course

**Simulator (Hands-on Practical Sessions)**

Practical sessions will be organized during the course for delegates to practice the theory learnt. Delegates will be provided with an opportunity to carryout various exercises using the “Petrel” software.



**Course Coordinator**

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