

COURSE OVERVIEW DE0797 Correlation Methods

Course Title

Correlation Methods

Course Date/Venue

Session 1: April 27-May 01, 2025/Meeting Plus 8, City Centre Rotana Doha Hotel, Doha, Qatar

Session 2: September 21-25, 2025/Meeting Plus 8, City Centre Rotana Doha Hotel, Doha, Qatar

Course Reference

DE0797

Course Duration/Credits

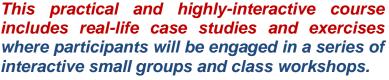
Five days/3.0 CEUs/30 PDHs

Course Description









This course is designed to provide participants with a detailed and up-to-date overview of correlation methods. It covers the origin/occurrence, definition and formation of kerogen and principal forms of petroleum; the unconventional resource; different rock types; the sedimentary structure; the structural geology; the petroleum process; and the petroleum systems that include oil and gas source rocks, oil and gas cap rocks, oil and gas reservoir rocks and rock property analysis.

During this interactive course, participants will learn the exploration techniques for petroleum; the prospect generation and evaluation, well planning process and drilling methods and techniques; the well site geology; the coring operations for core samples and core analysis; the petrophysics as well as principals and uses of logging tools; the petrophysics evaluation; the petroleum reserves, resources. reservoir description characterization; the data management and quality control; and the multidisciplinary integration of all available data.

























Course Objectives

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

- Apply and gain systematic techniques and methodologies on correlation methods
- Discuss petroleum covering its origin/occurrence, definition and formation of kerogen and principal forms of petroleum
- Explain unconventional resource comprising of shale as a hydrocarbon source and reservoir, unconventional oil and gas and economics
- Identify different rock types that include igneous rocks, metamorphic rocks and sedimentary rocks
- Illustrate sedimentary structure including rock cycling, sedimentary basins and modeling and sedimentary facies and modeling
- Discuss structural geology covering primary structures, stresses/strains and their relations to rock deformation and secondary structures
- Carryout petroleum process covering origin and formation, migration and accumulation
- Recognize petroleum systems that include oil and gas source rocks, oil and gas cap rocks, oil and gas reservoir rocks and rock property analysis
- Employ exploration techniques for petroleum including prospect generation and evaluation
- Illustrate well planning process and drilling methods and techniques
- Describe well site geology comprising of cutting evaluation, hydrocarbon and gas shows evaluation, mud logging, picking formation tops and reservoir unit
- Apply coring operations for core samples and core analysis
- Identify petrophysics as well as principals and uses of logging tools
- Evaluate petrophysics, prepare logging program and apply procedures and guidelines for electric logs correlation
- Discuss petroleum reserves, resources, reservoir description and characterization
- Apply data management and quality control and carryout multidisciplinary integration of all available data

Exclusive Smart Training Kit - H-STK®



Participants of this course will receive the exclusive "Haward 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 correlation methods for petroleum industry professionals such as petroleum engineers, drilling engineers, geologists and geophysicists involved in the important activities of exploration. reservoir evaluation, development and management, who require invaluable skills in the application of the techniques described for the successful exploration and production of oil and gas.

Course Certificate(s)

Internationally recognized certificates will be issued to all participants of the course.

Certificate Accreditations

Certificates are accredited by the following international accreditation organizations:-

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.



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.

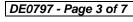






















Course Instructor(s)

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:



Dr. Steve Ehrenberg, PhD, MSc, BSc, is a Senior Geologist & Reservoir Engineer with 45 years of extensive experience within the Oil & Gas, Petrochemical and Refinery industries. His wide experience covers in the areas of Core & Log Integration, Water Saturation, Coring & Core Analysis, Special Core Analysis, Log Interpretation, Cased-Hole Logging, Correlation Methods, Core Calibration, Core Analysis, Core-to-Log Data Integration (SCAL), Wireline Logging, Mud Logging, Cased Hole Logging, Production Logging, Well Logging, Reservoir Management,

Appraisal & Development, Carbonate Reservoir Management, Reservoir Fractured Reservoirs Evaluation & Management, Naturally Fractured Reservoir, Characterization, Integrated Carbonate Reservoir Geological Reservoir Characterization, Geomodelling, Development Geology, Petroleum Geology, Exploration Production, Structural Geology, Wellsite Geology, Analytic Modelling Methods, Sedimentary Geology, Geophysics, Geophysical Exploration. Reservoir Engineering, Reservoir Engineering Applications. Reservoir Engineering & Stimulation, Reservoir Characterization, Clastic Reservoir, Carbonate Reservoir Petrology, Subsurface Facies Analysis, Borehole Images, Geophysical Methods, Oil & Gas Exploration, Marine & Petroleum Geology, Reservoir Performance Using Classical Methods, Fractured Reservoir Evaluation & Management, Reservoir Surveillance & Management, Reservoir Monitoring, , Reservoir Volumetrics, Water Drive Reservoir, Reservoir Evaluation, Well Surveillance, Well Testing, Well Testing & Oil Well Performance, Well Log Interpretation (WLI), Rock Physics & Seismic Data, Formation Evaluation, Well Testing & Data Interpretation, Pore Pressure Prediction and Oil & Gas Reserves Estimations, Well Workover Supervision, Description and Prediction of Reservoir Quality, Sequence Stratigraphy of Carbonate Systems and Introductory Geology.

During his career life, Dr. Ehrenberg held significant positions and dedication as Consultant, Professor, Senior Reservoir Geologist, Senior Geologist, Research Associate Professor. Assistant **Professor** Instructor/Trainer from various international companies and universities such as the Badley Ashton & Associates Ltd., Khalifa University of Science and Technology, Sultan Qaboos University, PanTerra Geoconsultants B.V, UAE University, Statoil, Stavanger, Shell Development Company and Northern Illinois University.

Dr. Ehrenberg has a PhD, Master's and Bachelor's degree in Geology from the University of California, USA and Occidental College, USA, respectively. Further, he is a Certified Trainer/Assessor/Internal Verifier by the Institute of Leadership & Management (ILM), a Certified Instructor/Trainer and has delivered numerous trainings, workshops, courses, seminars and conferences internationally.

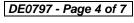






















Training Methodology

All our Courses are including Hands-on Practical Sessions using equipment, State-ofthe-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\$ 8,500 per Delegate. This rate includes H-STK® (Haward 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 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

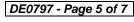
Day I	
0730 - 0800	Registration & Coffee
0800 - 0815	Welcome & Introduction
0815 - 0830	PRE-TEST
0830 - 0930	Introduction Objectives & Outlines of the Course • Free Discussion
0930 - 0945	Break
0945 – 1100	Introduction to Petroleum Petroleum Definition • Petroleum (Origin/Occurrence) • Kerogen (Definition, Formation) • Principal Forms of Petroleum
1100 – 1230	Unconventional Resource Definitions • Shale as a Hydrocarbon Source & Reservoir • Unconventional Gas & Oil • Economics
1230 - 1245	Break
1245 – 1330	Rock Types Igneous Rocks • Metamorphic Rocks • Sedimentary Rocks (Clastic, Carbonate)
1330 - 1420	Sedimentary Structure Rock Cycling
1420 – 1430	Recap
1430	Lunch & End of Day One





















Day 2

0730 - 0830	Sedimentary Basins & Modeling
0830 - 0930	Sedimentary Facies & Modeling
0930 - 0945	Break
0945 – 1100	Structural Geology Primary Structures • Stresses/Strains & their Relations to Rock Deformation • Secondary Structures (Faults & Fractures) • Secondary Structures (Folds & Unconformities)
1100 - 1230	Petroleum Process Origin & Formation ● Migration ● Accumulation
1230 - 1245	Break
1245 – 1420	Petroleum Systems Oil & Gas Source Rocks ● Oil & Gas Cap Rocks ● Oil & Gas Reservoir Rocks ● Rock Property Analysis
1420 - 1430	Recap
1430	Lunch & End of Day Two

Day 3

Day 3	
	Exploration Techniques for Petroleum
0730 - 0830	Geological Concept & Surface Geology • Geophysical Methods • Geochemical
	Methods • Stratigraphic Methods
	Prospect Generation & Evaluation
	Terms & Definition • Play - Prospect Resource Assessment Procedure • Risk
0830 - 0930	Assessment & Risk Management • Risk & Uncertainty of Exploration &
	Production Processes • Risk Analysis & Uncertainty in Relation to
	Exploration Prospects
0930 - 0945	Break
0945 - 1100	Well Planning Process
1100 - 1230	Drilling Methods & Techniques
	Vertical Wells ● Deviated Wells & Horizontal Wells
1230 - 1245	Break
	Well Site Geology
1245 - 1420	Cutting Evaluation • Hydrocarbon & Gas Shows Evaluation • Mud Logging
	• Picking Formation Tops & Reservoir Unit
1420 - 1430	Recap
1430	Lunch & End of Day Three

Day 4

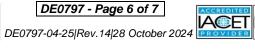
0730 - 0830	Coring Operations
	Core Samples (Conventional Coring, Sidewall Coring) • Core Analysis
0830 - 0930	Petrophysics
	Wireline Operations • Logging While Drilling Operations
0930 - 0945	Break
0945 – 1100	Principals & Uses of Logging Tools
	Overview on Lithology Logs • Overview on Porosity Logs • Overview on
	Saturation Logs
1100 – 1230	Petrophysics Evaluation
	Preparing Logging Program • Electric Logs Correlation (Procedure &
	Guidelines) • Quick Look Interpretation • Full Log Interpretation
1230 - 1245	Break





















1245 - 1420	Application & Workshop
1420 - 1430	Recap
1430	Lunch & End of Day Four

Day 5

Petroleum Reserves & Resources
Definition • Reserves/Resource Categorization • Estimations of
Reserves/Resource • Hydrocarbons-in-Place Calculations
Reservoir Description & Characterization
Definition • Workflow • Challenges of Reservoir Description &
Characterization
Break
Data Management & Quality Control
Multidisciplinary Integration of All Available Data
Break
Application, Workshop & Case Studies
Course Conclusion
POST-TEST
Presentation of Course Certificates
Lunch & End of Course

Practical Sessions

This practical and highly-interactive course includes real-life case studies and exercises: -



Course Coordinator

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