

COURSE OVERVIEW TM0109
Introduction to Onshore Oil and Gas Business

Course Title

Introduction to Onshore Oil and Gas Business

Course Date/Venue

Session 1: May 19-23, 2025/Fujairah Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE

Session 2: November 09-13, 2025/Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE



Course Reference

TM0109

Course Duration/Credits

Five days/3.0 CEUs/30 PDHs

Course Description



This practical and highly-interactive course includes real-life case studies and exercises where participants will be engaged in a series of interactive small groups and class workshops.

This course is designed to provide participants with a detailed and up-to-date overview of Introduction to Onshore Oil and Gas Business. It covers the global energy demand and supply trends, upstream, midstream, and downstream segments; the fundamentals of onshore oil and gas operations; the global and regional oil markets and the regulatory frameworks in the oil and gas industry; the geological and geophysical exploration techniques and onshore drilling operations and techniques; the reservoir engineering and oil recovery methods, oil production and well operations and health, safety, and environmental (HSE) considerations; and the oil transportation and pipeline infrastructure and oil storage and terminal operations.



During this interactive course, participants will learn the refining and petrochemical processing and LNG and gas processing facilities; the oil and gas marketing and trading and sustainability and decarbonization in oil & gas operations; the project economics and investment in onshore oil & gas, oil price mechanisms and revenue generation; the contracts and agreements, supply chain and logistics in onshore oil & gas; the human capital and workforce management and digital transformation in oil & gas; the future trends in onshore oil & gas industry; and the impact of renewable energy on the petroleum sector.



Course Objectives

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

- Apply and gain a fundamental knowledge on onshore oil and gas business
- Discuss global energy demand and supply trends, upstream, midstream, and downstream segments and fundamentals of onshore oil and gas operations
- Assess global and regional oil markets and the regulatory frameworks in the oil and gas industry
- Carryout geological and geophysical exploration techniques as well as onshore drilling operations and techniques
- Employ reservoir engineering and oil recovery methods, oil production and well operations and health, safety, and environmental (HSE) considerations
- Describe oil transportation and pipeline infrastructure and apply oil storage and terminal operations
- Illustrate refining and petrochemical processing and discuss LNG and gas processing facilities
- Explain oil and gas marketing and trading as well as sustainability and decarbonization in oil & gas operations
- Discuss project economics and investment in onshore oil & gas, oil price mechanisms and revenue generation
- Review contracts and agreements in oil & gas and apply supply chain and logistics in onshore oil & gas
- Carryout human capital and workforce management and discuss digital transformation in oil & gas
- Interpret the future trends in onshore oil & gas industry and the impact of renewable energy on the petroleum sector

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 a basic overview of all significant aspects and considerations of introduction to onshore oil and gas business for industry newcomers, aspiring professionals, entry-level oil and gas employees, project managers and engineers, business development and sales professionals, regulatory and environmental professionals, investors and analysts, consultants and other technical staff.

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: -

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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 Fee

US\$ 5,500 per Delegate + **VAT**. 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 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. Chris Kapetan, PhD, MSc, BSc, is a Senior Drilling & Petroleum Engineer with over 30 years of Offshore & Onshore international experience in Drilling/Reservoir/Petroleum Engineering and Well Service Operations. He is a recognized authority in “Hands On” Service and Drilling Operations, Directional Drilling, Gas Lift Operations, Production Operations, Gas Lift Valve Changing & Installation, Well Completion Design & Operation, Well Stimulation & Control and Workover Planning,

Completions & Workover, Rig Sizing, Hole Cleaning & Logging, Well Completion, Servicing and Work-Over Operations, Practical Reservoir Engineering, X-mas Tree & Wellhead Operations, Maintenance & Testing, Advanced Petrophysics/Interpretation of Cased Hole Logs, Well Composite, Construction Integrity & Completion, Coiled Tubing Technology, Corrosion Control, Wireline & Coil Tubing, Pipeline Pigging, Corrosion Monitoring, Cathodic Protection as well as Production Safety and Delusion of Asphalt. Currently, he is the Operations Manager at GEOTECH and an independent Drilling Operations Consultant of a large specialized engineering services provider to the international clients. Moreover, he offer his expertise in many areas of the drilling discipline and is well recognized & respected for his process and procedural expertise as well as ongoing participation, interest and experience in continuing to promote technology to producers around the world.

Throughout his long career life, Dr. Chris has worked for many international companies and has spent several years **managing technically complex wellbore interventions** in both **drilling & servicing**. He is a **well regarded** for his **process and procedural expertise**. Further, he was the **Operations Manager at ETP Crude Oil Pipeline Services** where he was fully responsible for optimum operations of crude oil pipeline, **workover and directional drilling, drilling rigs** and equipment, drilling of various geothermal deep wells and **exploration wells**. Dr. Chris was the **Drilling & Workover Manager & Superintendent for Kavala Oil** wherein he was responsible for supervision of **drilling operations and offshore exploration**, quality control of performance of **rigs, coiled tubing**, crude oil transportation via pipeline and abandonment of **well** as per the API requirements. He had occupied various key positions as the **Drilling Operations Consultant, Site Manager, Branch Manager, Senior Drilling & Workover Manager & Engineer and Drilling & Workover Engineer** in several petroleum companies responsible mainly on an **offshore sour oil field** (under water flood and gas lift) and a gas field. Further, Dr. Chris was a **Technical Consultant of Geotech and a Professor of Oil Technology College**.

Dr. Chris has **PhD, Master and Bachelor** degrees in **Reservoir Engineering, Drilling & Production Engineering and Petroleum Engineering**, respectively. Further, he has conducted **numerous short courses, seminars and workshops** and has published several technical books on **Production Logging, Safety Drilling Rigs and Oil Reservoir**.

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 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	Registration & Coffee
0800 – 0815	Welcome & Introduction
0815 – 0830	PRE-TEST
0830 – 0930	Introduction to the Oil & Gas Industry History & Evolution of the Oil & Gas Sector • Global Energy Demand & Supply Trends • Key Players in the Oil & Gas Market
0930 – 0945	Break
0945 – 1040	Upstream, Midstream, & Downstream Segments Overview of the Upstream Sector (Exploration & Production) • The Midstream Sector (Transportation & Storage) • The Downstream Sector (Refining & Distribution) • Integrated Operations Across All Segments
1040 – 1135	Fundamentals of Onshore Oil & Gas Operations Differences Between Onshore & Offshore Oil Fields • Onshore Oil Exploration & Drilling Techniques • Onshore Production & Processing Facilities • Environmental & Social Impacts of Onshore Operations
1135 - 1230	Global & Regional Oil Markets Factors Influencing Oil Prices (OPEC, Geopolitics, Supply & Demand) • Market Trends & Future Energy Projections • Global Oil Market • The Role of National Oil Companies (NOCs) versus International Oil Companies (IOCs)
1230 - 1245	Break
1245 – 1335	Regulatory Frameworks in the Oil & Gas Industry International Regulations Governing Oil & Gas Operations • Compliance with Laws & Regulations • HSE (Health, Safety & Environment) Regulatory Requirements • Risk Management & Legal Considerations in Onshore Operations
1335 - 1420	Vision, Mission, & Strategic Goals Contribution to the Economy • Strategic Objectives & Long-Term Growth Plans • Commitment to Sustainability & Innovation • Key Investment Projects in Onshore Oil & Gas
1420 – 1430	Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow
1430	Lunch & End of Day One

Day 2

0730 – 0830	Geological & Geophysical Exploration Techniques Basics of Petroleum Geology & Basin Analysis • Seismic Surveys & Data Interpretation • Well Logging & Formation Evaluation • Exploration Drilling Planning & Execution
0830 - 0930	Onshore Drilling Operations & Techniques Overview of Drilling Rigs & Equipment • Types of Drilling (Vertical, Directional, Horizontal) • Well Completion & Well Testing Processes • Challenges in Onshore Drilling Operations
0930 – 0945	Break
0945 – 1040	Reservoir Engineering & Oil Recovery Methods Fundamentals of Reservoir Engineering • Primary, Secondary, & Tertiary Recovery Methods • Enhanced Oil Recovery (EOR) Techniques • Reservoir Simulation & Field Development Planning
1040 – 1135	Oil Production & Well Operations Surface Facilities for Oil Production • Artificial Lift Methods (Gas Lift, ESP, Rod Pumps) • Well Integrity Management & Monitoring • Production Optimization Strategies
1135 - 1230	Health, Safety, & Environmental (HSE) Considerations HSE Challenges in Onshore Oil Fields • Safety Culture & Best Practices • Emergency Response Planning in Oilfields • Environmental Impact Mitigation Strategies
1230 - 1245	Break
1245 - 1420	Case Study: Major Onshore Oil Fields Operated Major Onshore Assets • Production Strategies & Technological Innovations • Economic Contributions • Future Expansion Plans & Sustainability Initiatives
1420 – 1430	Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow
1430	Lunch & End of Day Two

Day 3

0730 – 0830	Oil Transportation & Pipeline Infrastructure Crude Oil & Refined Product Pipelines • Pipeline Integrity & Maintenance Strategies • Challenges in Pipeline Security & Monitoring • Crude Oil Transportation Network
0830 – 0930	Oil Storage & Terminal Operations Storage Tanks & Facilities for Onshore Oil • Safety & Risk Management in Oil Storage • Oil Blending & Quality Control Measures • Terminal Operations & Export Strategies
0930 – 0945	Break
0945 – 1040	Refining & Petrochemical Processing Fundamentals of Oil Refining Processes • Refining & Petrochemical Facilities • Value-Added Products from Crude Oil • Emerging Trends in Refining Technologies
1040 – 1135	LNG & Gas Processing Facilities Overview of Natural Gas Processing Units • LNG Liquefaction & Distribution • Gas Treatment & NGL Recovery Processes • Role of Gas in Energy Transition Strategy
1135 - 1230	Oil & Gas Marketing & Trading Marketing & Trading Strategies • Spot Markets versus Long-Term Contracts • Risk Management in Oil Trading • Expansion in Global Oil Markets
1230 - 1245	Break

1245 - 1420	Sustainability & Decarbonization in Oil & Gas Operations Initiatives for Reducing Carbon Footprint • Role of Hydrogen & Carbon Capture Technologies • Energy Efficiency Improvements in Onshore Facilities • Commitments to Net-Zero Targets
1420 - 1430	Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow
1430	Lunch & End of Day Three

Day 4

0730 - 0830	Project Economics & Investment in Onshore Oil & Gas Cost Estimation & Budgeting for Oil Projects • Economic Viability of Onshore Oilfields • Capital Investment Strategies • Financial Risks & ROI in Oil & Gas Projects
0830 - 0930	Oil Price Mechanisms & Revenue Generation Pricing Benchmarks (Brent, WTI, OPEC Basket) • Revenue Streams & Pricing Strategies • Volatility in Oil Markets & Its Impact • Hedging & Risk Management Techniques
0930 - 0945	Break
0945 - 1100	Contracts & Agreements in Oil & Gas Types of Oil & Gas Contracts (PSC, JOA, Service Agreements) • Licensing & Partnership Models • Legal & Financial Considerations in Agreements • Managing Contract Risks in Onshore Operations
1100 - 1230	Supply Chain & Logistics in Onshore Oil & Gas Procurement Strategies in Oil & Gas • Supply Chain Optimization Initiatives • Logistics Challenges in Remote Onshore Fields • Digitalization of Supply Chain Management
1230 - 1245	Break
1245 - 1420	Human Capital & Workforce Management Workforce Planning for Onshore Operations • Training & Development Programs • Managing Health & Safety in Field Operations • Local Talent Development & Emiratization Initiatives
1420 - 1430	Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow
1430	Lunch & End of Day Four

Day 5

0730 - 0930	Digital Transformation in Oil & Gas Role of Artificial Intelligence & IoT in Operations • Digital Twin Technology for Oilfield Management • Predictive Analytics & Remote Monitoring • Smart Oilfield Initiatives
0930 - 0945	Break
0945 - 1100	Future Trends in Onshore Oil & Gas Industry Evolving Role of Oil in the Energy Transition • Impact of Renewable Energy on the Petroleum Sector • Emerging Technologies in Exploration & Production • Future Roadmap for Onshore Operations
1100 - 1230	Case Study Implementation of Low-Carbon Technologies • Green Energy Projects in Oilfields • Strategies for Water & Waste Management • Case Study Analysis & Group Discussion
1230 - 1245	Break

1245 - 1345	Interactive Workshop: Business Strategy Simulation <i>Simulating an Oil & Gas Business Decision-Making Scenario • Risk Assessment & Investment Planning • Crisis Management & Emergency Response Exercise • Presentation of Group Findings & Recommendations</i>
1345 - 1400	Course Conclusion <i>Using this Course Overview, the Instructor(s) will Brief Participants about the Course Topics that were Covered During the Course</i>
1400 - 1415	POST-TEST
1415 - 1430	<i>Presentation of Course Certificates</i>
1430	<i>Lunch & End of Course</i>

Practical Sessions

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



Course Coordinator

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