

COURSE OVERVIEW DE0344
Oilfield Development and Production Optimization

Course Title

Oilfield Development and Production Optimization

Course Date/Venue

Please refer to page 4

Course Reference

DE0344

Course Duration/Credits

Five days/3.0 CEUs/30 PDHs



Course Description



This practical and highly-interactive course includes real-life case studies 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 Oilfield Development and Production Optimization. It covers the basics of petroleum geology, reservoir rock and fluid properties; the types, characteristics and formation of oil and gas reservoirs and the fundamentals of reservoir engineering; the exploration techniques and regulatory and environmental considerations; the petrophysical properties, reservoir heterogeneity and geostatistics; and the core analysis and interpretation, log interpretation, 3D reservoir modeling and uncertainty and risk analysis.

Further, the course will also discuss the well drilling and completion, drilling technologies and modern drilling techniques; the drilling fluids, hydraulics and the importance of mud systems; the well completion design, wellbore stability, sand control, testing and pressure transient analysis; the reservoir management strategies, reservoir monitoring and tools and techniques for reservoir surveillance; and the waterflooding principles and secondary recovery methods, enhanced oil recovery (EOR) methods and tertiary recovery techniques.

During this interactive course, participants will learn the production decline analysis, artificial lift methods, production system analysis, choke performance and flow assurance; the scale, corrosion and erosion, well intervention, workover operations and techniques to enhance production; optimizing real-time production and using data for decision-making; the project evaluation of petroleum economics, asset management strategies, risk management in oilfield development and project planning and execution; the health, safety and environmental (HSE) management, stakeholder engagement and effective communication strategies; the advanced waterflooding, CO₂ EOR and sequestration; the thermal recovery methods, chemical EOR techniques, gas injection methods and unconventional oil recovery; the emerging technologies in oil and gas; the sustainability and green practices in oilfield operations; and the future of oil and gas in the energy transition.

Course Objectives

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

- Apply and gain a comprehensive knowledge on oilfield development and production optimization
- Recognize the basics of petroleum geology, reservoir rock and fluid properties
- Identify the types, characteristics and formation of oil and gas reservoirs and the fundamentals of reservoir engineering
- Carryout exploration techniques covering seismic methods and drilling technologies as well as review regulatory and environmental considerations
- Identify petrophysical properties, reservoir heterogeneity and geostatistics
- Carryout core analysis and interpretation, log interpretation, 3D reservoir modeling and uncertainty and risk analysis
- Discuss well drilling and completion as well as implement drilling technologies and modern drilling techniques
- Recognize the drilling fluids and hydraulics and the importance of mud systems
- Illustrate well completion design, wellbore stability, sand control, testing and pressure transient analysis
- Employ reservoir management strategies, reservoir monitoring and the tools and techniques for reservoir surveillance
- Apply waterflooding principles and secondary recovery methods, enhanced oil recovery (EOR) methods and tertiary recovery techniques
- Carryout production decline analysis, artificial lift methods, production system analysis, choke performance and flow assurance
- Determine scale, corrosion and erosion as well as carryout well intervention, workover operations and techniques to enhance production
- Optimize real-time production and use data for decision-making

- Apply project evaluation of petroleum economics, asset management strategies, risk management in oilfield development and project planning and execution
- Carryout health, safety and environmental (HSE) management, stakeholder engagement and effective communication strategies
- Illustrate advanced waterflooding, CO₂ EOR and sequestration, thermal recovery methods, chemical EOR techniques, gas injection methods and unconventional oil recovery
- Explain the emerging technologies in oil and gas including the sustainability and green practices in oilfield operations and the future of oil and gas in the energy transition

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 oilfield development and production optimization for production engineers, reservoir engineers, completion engineers, drilling and facilities engineers and field operators.

Course Date/Venue


Session(s)	Date	Venue
1	May 03-07, 2026	Meeting Plus 9, City Centre Rotana, Doha, Qatar
2	May 17-21, 2026	Tamra Meeting Room, Al Bandar Rotana Creek, Dubai, UAE
3	July 06-10, 2026	Ruben Boardroom, The Rubens at The Palace, Buckingham Palace Road, London, United Kingdom
4	August 03-07, 2026	Salon Expo, NH Hotel Plaza de Armas, Seville, Spain
5	October 25-29, 2026	Meeting Plus 9, City Centre Rotana, Doha, Qatar
6	November 02-06, 2026	Pierre Lotti Meeting Room, Movenpick Hotel Istanbul Golden Horn, Istanbul, Turkey
7	December 20-24, 2026	Meeting Room 4, Four Seasons Hotel Cairo at Nile Plaza, Corniche El Nil, Garden City, Cairo, Egypt
8	January 03-07, 2027	Meeting Plus 9, City Centre Rotana, Doha, Qatar
9	January 24-28, 2027	Tamra Meeting Room, Al Bandar Rotana Creek, Dubai, UAE
10	March 14-18, 2027	Ruben Boardroom, The Rubens at The Palace, Buckingham Palace Road, London, United Kingdom

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

Howard's certificates are accredited by the following international accreditation organizations:

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British Accreditation Council (BAC)

Howard Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. Howard's certificates are internationally recognized and accredited by the British Accreditation Council (BAC). 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, Howard 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)

Howard 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, Howard 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, Howard Technology is authorized to offer IACET CEUs for its programs that qualify under the **ANSI/IACET 2018-1 Standard**.

Howard 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.

Howard 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 Howard Technology programs. A permanent record of a participant's involvement and awarding of CEU will be maintained by Howard Technology. Howard Technology will provide a copy of the participant's CEU and PDH Transcript of Records upon request.

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:



Mr. Stan Constantino, MSc, BSc, is a **Senior Petroleum & Reservoir Engineer** with over **30 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 Fee

Dubai	US\$ 8,000 per Delegate + VAT . This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
London	US\$ 8,800 per Delegate + VAT . This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Seville	US\$ 8,800 per Delegate + VAT . This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Cairo	US\$ 8,000 per Delegate + VAT . This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Istanbul	US\$ 8,500 per Delegate + VAT . This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Doha	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.

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	<i>Registration & Coffee</i>
0800 – 0815	<i>Welcome & Introduction</i>
0815 – 0830	PRE-TEST
0830 – 0900	Overview of the Oil & Gas Industry: History, Current State and Future Trends
0900 – 0915	Basics of Petroleum Geology: Understanding Reservoir Rock and Fluid Properties
0915 – 0930	Oil & Gas Reservoirs: Types, Characteristics and Formation
0930 – 0945	<i>Break</i>
0945 – 1045	Fundamentals of Reservoir Engineering: Reservoir Life Cycle, Volumetric Estimation
1045 – 1115	Exploration Techniques: Seismic Methods, Drilling Technologies
1115 – 1145	Regulatory & Environmental Considerations: Compliance, Safety and Sustainability



1145 - 1230	Petrophysical Properties: Porosity, Permeability and Saturation
1230 - 1245	Break
1245 - 1315	Reservoir Heterogeneity & Geostatistics: Understanding Variability in Reservoirs
1315 - 1345	Core Analysis & Interpretation: Laboratory Analysis of Rock Samples
1345 - 1420	Log Interpretation: Understanding Well Logs for Reservoir Evaluation
1420 - 1430	Recap
1430	Lunch & End of Day One

Day 2

0730 - 0800	3D Reservoir Modeling: Techniques and Tools
0800 - 0830	Uncertainty & Risk Analysis: Managing Uncertainties in Reservoir Characterization
0830 - 0900	Drilling Technologies: Overview of Modern Drilling Techniques
0900 - 0930	Drilling Fluids & Hydraulics: Understanding the Importance of Mud Systems
0930 - 0945	Break
0945 - 1030	Well Completion Design: Types of Completions, Design Criteria
1030 - 1130	Wellbore Stability: Understanding and Managing Wellbore Pressures
1130 - 1200	Sand Control: Techniques and Strategies
1200 - 1230	Well Testing & Pressure Transient Analysis: Interpretation and Application
1230 - 1245	Break
1245 - 1315	Reservoir Management Strategies: Maximizing Recovery and Value
1345 - 1345	Reservoir Monitoring: Tools and Techniques for Reservoir Surveillance
1345 - 1420	Waterflooding Principles: Secondary Recovery Methods
1420 - 1430	Recap
1430	Lunch & End of Day Two

Day 3

0730 - 0800	Enhanced Oil Recovery (EOR) Methods: Tertiary Recovery Techniques
0800 - 0830	Production Decline Analysis: Understanding and Predicting Production Decline
0830 - 0900	Reservoir Simulation: Applying Simulation in Reservoir Management
0900 - 0930	Artificial Lift Methods: Types and Applications
0930 - 0945	Break
0945 - 1030	Production System Analysis: Nodal Analysis, System Optimization
1030 - 1100	Choke Performance & Flow Assurance: Managing Flow from Reservoir to Surface
1100 - 1130	Scale, Corrosion & Erosion: Challenges and Mitigation Strategies
1130 - 1230	Well Intervention & Workover Operations: Techniques to Enhance Production
1230 - 1245	Break
1245 - 1315	Real-time Production Optimization: Using Data for Decision-Making
1315 - 1345	Petroleum Economics: Fundamentals and Project Evaluation
1345 - 1420	Asset Management Strategies: Maximizing Asset Value
1420 - 1430	Recap
1430	Lunch & End of Day Three

Day 4

0730 - 0800	Risk Management in Oilfield Development: Identifying and Managing Risks
0800 - 0830	Project Planning & Execution: Best Practices in Project Management
0830 - 0900	Health, Safety & Environmental (HSE) Management: Key Considerations



0900 - 0930	Stakeholder Engagement & Communication: Effective Communication Strategies
0930 - 0945	Break
0945 - 1030	Advanced Waterflooding: New Approaches and Technologies
1030 - 1130	CO2 EOR & Sequestration: Utilization and Environmental Aspects
1130 - 1230	Thermal Recovery Methods: Steam Flooding, SAGD
1230 - 1245	Break
1245 - 1315	Chemical EOR Techniques: Polymer, Surfactant Flooding
1315 - 1345	Gas Injection Methods: Miscible and Immiscible Gas Injection
1345 - 1420	Unconventional Oil Recovery: Techniques for Shale and Tight Oil
1420 - 1430	Recap
1430	Lunch & End of Day Four

Day 5

0730 - 0800	Case Study: Reservoir Characterization & Development Plan
0800 - 0830	Case Study: Successful EOR Implementation
0830 - 0900	Case Study: Drilling Optimization in a Challenging Environment
0900 - 0930	Case Study: Digital Transformation in an Oilfield
0930 - 0945	Break
0945 - 1015	Practical Workshop: Simulation & Modeling Exercises
1015 - 1045	Group Discussion: Problem-Solving in Production Optimization
1045 - 1115	Emerging Technologies in Oil & Gas: Innovations Shaping the Future
1115 - 1145	Sustainability & Green Practices in Oilfield Operations: Environmental Stewardship
1145 - 1230	The Future of Oil & Gas in the Energy Transition: Renewable Energy and its Impact
1230 - 1245	Break
1245 - 1345	Career Paths & Opportunities in Oilfield Development & Production Optimization
1345 - 1400	Course Conclusion
1400 - 1415	POST-TEST
1415 - 1430	Presentation of Course Certificates
1430	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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