

COURSE OVERVIEW DE0393
Production Operations 1

Course Title

Production Operations 1

Course Reference

DE0393

Course Duration/Credits

Five days/3.0 CEUs/30 PDHs



Course Date/Venue

Session(s)	Date	Venue
1	May 05-09, 2024	Oryx Meeting Room, DoubleTree By Hilton Doha-Al Sadd, Doha, Qatar
2	September 08-12, 2024	
3	November 03-07, 2024	
4	December 08-12, 2024	

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 Production Operations. It covers the basic principles of petroleum geology, reservoir fundamentals, well drilling and completion basics; the surface facilities in production operations; the importance of safety practices and environmental protection in production operations; the wellhead systems and components, artificial lift systems and separation processes; the flow-related challenges, well testing and monitoring; and the maintenance and troubleshooting of production equipment.



During this interactive course, participants will learn the production enhancement techniques, water injection, enhanced oil recovery (EOR) and scale and corrosion control; the well performance analysis, production allocation and accounting; the crude oil treatment and stabilization; the gas processing and conditioning, produced water treatment, hydrocarbon storage and transportation; the metering and measurement technology; the regulatory framework in production operations; the best practices in managing production assets and facilities; the HSE management strategies in production operations; and the impact of digital technologies on production operations.

Course Objectives

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

- Apply and gain an in-depth knowledge on production operations
- Discuss the basic principles of petroleum geology, reservoir fundamentals and well drilling and completion basics
- Identify the surface facilities in production operations and the importance of safety practices and environmental protection in production operations
- Recognize wellhead systems and components, artificial lift systems and separation processes and equipment
- Identify and manage flow-related challenges and apply well testing and monitoring and maintenance and troubleshooting of production equipment
- Apply production enhancement techniques, water injection and enhanced oil recovery (EOR) and scale and corrosion control
- Carryout well performance analysis, production allocation and accounting including crude oil treatment and stabilization
- Illustrate gas processing and conditioning, produced water treatment, hydrocarbon storage and transportation and metering and measurement technology
- Discuss regulatory framework in production operations and apply best practices in managing production assets and facilities
- Employ HSE management strategies in production operations and explain the impact of digital technologies on production operations

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 production operations for production managers and supervisors, operations managers, production engineers, manufacturing engineers, quality control and assurance personnel, supply chain professionals, maintenance and reliability engineers, new entrants to the industry, entrepreneurs and small business owners and those who are interested in production processes.

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 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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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.

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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.

Course Fees

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 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, is a **Senior Petroleum Engineer** with over **30 years** of international experience within the **onshore and offshore oil & gas** industry. His wide experience covers **Decision Analytic Modelling Methods for Economic Evaluation, Probabilistic Risk Analysis (Monte Carlo Simulator) Risk Analysis Foundations, Global Oil Demand, Crude Oil Market, Global Oil Reserves, Oil Supply & Demand, Governmental Legislation, Contractual Agreements, Financial Modeling, Oil Contracts, Project Risk Analysis, Feasibility Analysis Techniques, Capital Operational Costs, Oil & Gas Exploration Methods, Reservoir Evaluation, Extraction of Oil & Gas, Crude Oil Types & Specifications, Sulphur, Sour Natural Gas, Natural Gas Sweetening, Petroleum Production, Field Layout, Production Techniques & Control, Surface Production Operations, Oil Processing, Oil Transportation-Methods, Flowmetering & Custody Transfer and Oil Refinery**. Further, he is also well-versed in **Enhanced Oil Recovery (EOR), Electrical Submersible Pumps (ESP), Oil Industries Orientation, Geophysics, Cased Hole Formation Evaluation, Cased Hole Applications, Cased Hole Logs, Production Operations, Production Management, Perforating Methods & Design, Perforating Operations, Fishing Operations, Well & Reservoir Testing, Reservoir Stimulation, Hydraulic Fracturing, Carbonate Acidizing, Sandstone Acidizing, Drilling Fluids Technology, Drilling Operations, Directional Drilling, Artificial Lift, Gas Lift Design, Gas Lift Operations, Petroleum Business, Petroleum Economics, Field Development Planning, Gas Lift Valve Changing & Installation, Well Completion Design & Operation, Well Surveillance, Well Testing, 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 Well Composite, Construction Integrity & Completion, Coiled Tubing Technology, Corrosion Control, Slickline, Wireline & Coil Tubing, Pipeline Pigging, Corrosion Monitoring, Cathodic Protection** as well as **Root Cause Analysis (RCA), Root Cause Failure Analysis (RCFA), Gas Conditioning & Process Technology, Production Safety and Delusion of Asphalt**. Currently, he is the **Operations Consultant & the Technical Advisor at GEOTECH** and an independent **Drilling Operations Consultant** of various engineering services providers to the international clients as he offers his expertise in many areas of the **drilling & petroleum 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, Operations Consultant, Technical Advisor** 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 has been a **Professor of the Oil Technology College**.

Dr. Chris has **PhD in Reservoir Engineering** and a **Master degree in Drilling & Production Engineering** from the **Petrol-Gaze Din Ploiesti University**. Further, he is a **Certified Surfaced BOP Stack Supervisor** of **IWCF**, a **Certified Instructor/Trainer**, a **Certified Trainer/Assessor/Internal Verifier** by the **Institute of Leadership & Management (ILM)** and has conducted **numerous short courses, seminars and workshops** and has published several technical books on **Production Logging, Safety Drilling Rigs and Oil Reservoir**.

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: The Global Context of Oil & Gas Production
0900 – 0930	Basic Principles of Petroleum Geology: Fundamental Concepts in the Formation & Occurrence of Hydrocarbons
0930 – 0945	<i>Break</i>
0945 – 1130	Reservoir Fundamentals: Reservoir Properties & Dynamics
1130 – 1230	Well Drilling & Completion Basics: Drilling Operations & Well Completion Methods
1230 – 1245	<i>Break</i>
1245 – 1300	Surface Facilities in Production Operations: Overview of Equipment & Facilities on the Surface
1300 – 1420	Safety & Environmental Considerations: Importance of Safety Practices & Environmental Protection in Production Operations
1420 – 1430	Recap
1430	<i>Lunch & End of Day One</i>

Day 2

0730 – 0830	Wellhead Systems & Components: The Function & Components of Wellheads
0830 – 0930	Artificial Lift Systems: Various Artificial Lift Methods (e.g., Rod Pumps, ESPs)
0930 – 0945	<i>Break</i>
0945 – 1130	Separation Processes & Equipment: Basics of Oil-Gas-Water Separation
1300 – 1230	Flow Assurance: Identifying & Managing Flow-Related Challenges (e.g., Hydrates, Wax)
1230 – 1245	<i>Break</i>
1245 – 1300	Well Testing & Monitoring: Techniques & Equipment Used for Well Testing
1300 – 1420	Maintenance & Troubleshooting of Production Equipment: Basic Maintenance Practices & Troubleshooting Techniques
1420 – 1430	Recap
1430	<i>Lunch & End of Day Two</i>

Day 3

0730 – 0830	Production Enhancement Techniques: Methods to Increase Well Productivity
0830 – 0930	Water Injection & Enhanced Oil Recovery (EOR) Basics: Overview of Secondary & Tertiary Recovery Techniques
0930 – 0945	<i>Break</i>
0945 – 1130	Scale & Corrosion Control: Managing Scale & Corrosion Issues
1300 – 1230	Well Performance Analysis: Techniques for Evaluating & Optimizing Well Performance

1230 - 1245	Break
1245 - 1300	Production Allocation and Accounting: Principles of production allocation and hydrocarbon accounting
1300 - 1420	Case Studies: Real-world examples of production optimization challenges and solutions
1420 - 1430	Recap
1430	Lunch & End of Day Two

Day 4

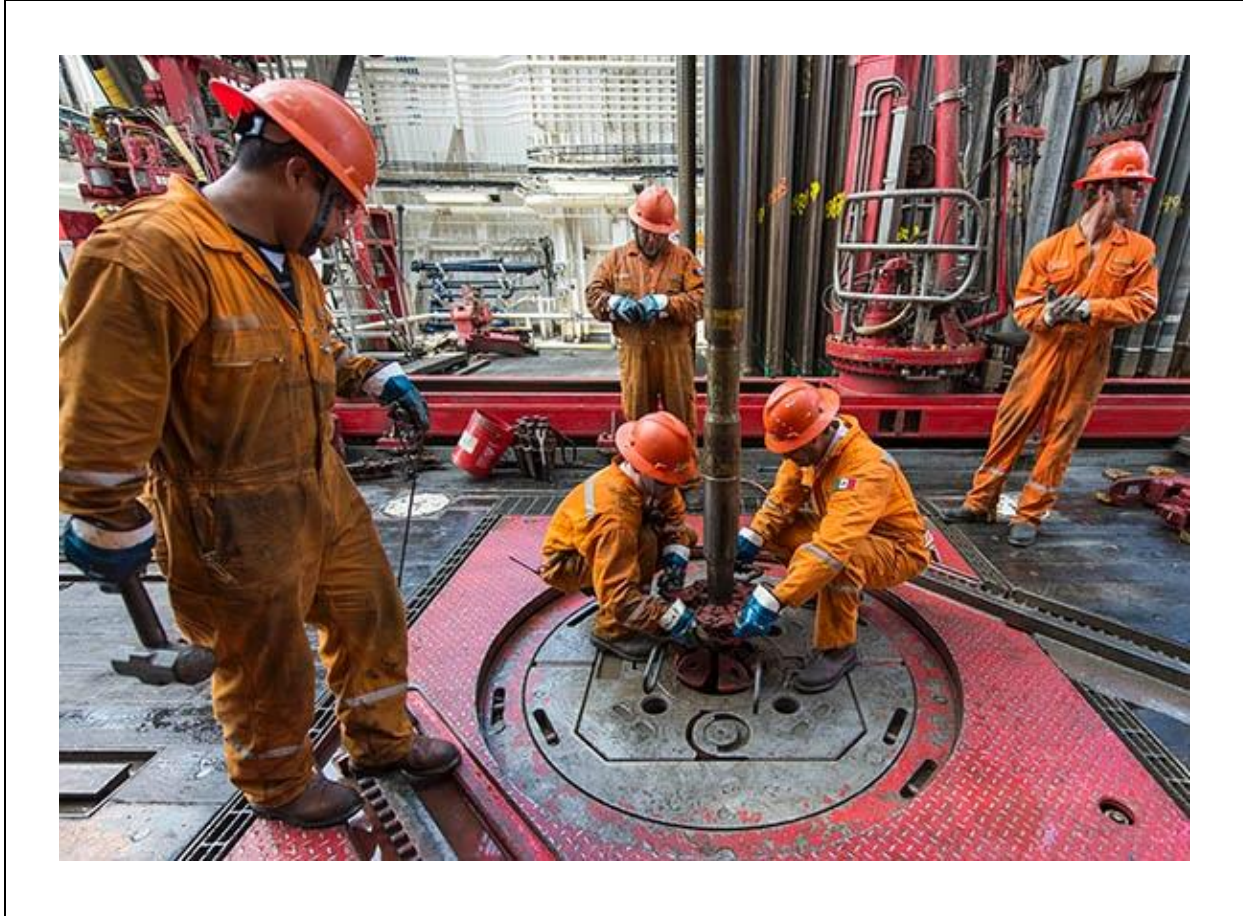
0730 - 0830	Crude Oil Treatment & Stabilization: Processes Involved in Preparing Crude Oil for Sale
0830 - 0930	Gas Processing & Conditioning: Basics of Natural Gas Treatment & Processing
0930 - 0945	Break
0945 - 1130	Produced Water Treatment: Techniques & Equipment for Treating Produced Water
1300 - 1230	Storage & Transportation of Hydrocarbons: Methods of Storing & Transporting Oil & Gas
1230 - 1245	Break
1245 - 1420	Metering & Measurement Technology: Metering Systems & Measurement Technologies
1420 - 1430	Recap
1430	Lunch & End of Day Four

Day 5

0730 - 0830	Regulatory Framework in Production Operations: Compliance with Industry Regulations & Standards
0830 - 0930	Asset & Facility Management: Best Practices in Managing Production Assets & Facilities
0930 - 0945	Break
0945 - 1130	HSE Management in Production Operations: Health, Safety & Environmental Management Strategies
1130 - 1230	Digitalization in Production Operations: Impact of Digital Technologies on Production Operations
1230 - 1245	Break
1245 - 1345	Future Challenges & Opportunities in Production: Emerging Trends & Challenges in the Industry
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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