

COURSE OVERVIEW DE0246(DP1)-4D
Production Technology & Engineering

Well Completion, Reservoir & Tubing Performance, Artificial Lift, Well Stimulation & Production Logging

Course Title

Production Technology & Engineering
Well Completion, Reservoir & Tubing Performance, Artificial Lift, Well Stimulation & Production Logging



Course Date/Venue

October 07-10, 2024/Boardroom 1, Elite Byblos
 Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE

Course Reference

DE0246(DP1)-4D

Course Duration/Credits

Four days/2.4 CEUs/24 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 will provide the participants a general understanding of the role of production technology and engineering in multi-disciplines. It introduces a broad array of important daily production technology practices to team members. Terminologies, expressions and basic calculations regularly utilized by production technicians will be covered during the course.



Further, the course will also discuss the conventional completions; the advanced well completions; the artificial lift; perforating; the production logging for monitoring and detection of problems; the causes, identification, drilling period, W.O. period and production period of formation damage; the matrix acidizing and formation damage removal; the reasons for skin damage; the best method for removal; the criteria for acid mixture; the lab testing prior to mixing and pumping; the hydraulic fracturing; the sand control; the isolation of wet zones; and the reasons for W.O. methods and economics.

Course Objectives

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

- Apply and gain an in-depth knowledge on well completion, reservoir and tubing performance, artificial lift, well stimulation and production logging
- Discuss the conventional completions covering wellbore completion concepts, completion criteria, multiple zone completion, advantages and disadvantages, completion equipment, packers and types, nipples, SSD's, SPM's and tubing selection to fulfill the production demands
- Explain advanced well completions including dual and multi string completion and segregation of production zones as well as reservoir and tubing performance including inflow and tubing performance, flow through chokes, completion and optimization of production
- Select and design artificial lift comprising of ESPs, gas lift, PCPs, beam pumps and hydraulic pumps including the applicable methods, description and restrictions in the area
- Identify perforating as well as guns, types of maximum penetration and selection criteria
- Carryout production logging for monitoring and detection of problem as well as present and select criteria to achieve the well's demand
- Determine the causes, identification, drilling period, W.O. period and production period of formation damage
- Illustrate matrix acidizing and formation damage removal as well as detect reasons for skin damage, select the best method for removal, identify criteria for acid mixture and apply lab testing prior to mixing and pumping
- Recognize hydraulic fracturing covering its concepts, programs, applications, testing prior to execution and preparations for fracturing
- Employ sand control by identifying the causes, treatments and installation of sand screens with completion
- Describe isolation of wet zones and discuss the reasons for W.O. methods and economics

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, sample video clips of the instructor’s actual lectures & practical sessions during the course conveniently saved in a **Tablet PC**.

Who Should Attend

This course provides an overview of all significant aspects and considerations of well completion, reservoir and tubing performance, artificial lift, well stimulation and production logging for trainee production engineers, petroleum engineers and specialist service company engineers.

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\$ 6,750 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 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 **2.4 CEUs** (Continuing Education Units) or **24 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 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's** 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: Monday, 07th of October 2024

0730 – 0800	Registration & Coffee
0800 – 0815	Welcome & Introduction
0815 – 0830	PRE-TEST
0830 – 0930	Conventional Completions Wellbore Completion Concepts • Completion Criteria • Multiple Zone Completion • Advantages & Disadvantages
0930 – 0945	Break
0945 – 1100	Conventional Completions (cont'd) Completion Equipment • Packers & Types • Nipples, SSD's, SPM's & Tubing Selection to Fulfill the Production Demands •
1100 – 1230	Advanced Well Completions Dual Completion • Multi String Completion • Segregation of Production Zones
1230 – 1245	Break
1245 – 1420	Reservoir & Tubing Performance Inflow Performance • Tubing Performance • Flow Through Chokes • Completion • Optimization of Production
1420 – 1430	Recap
1430	Lunch & End of Day One

Day 2: Tuesday, 08th of October 2024

0730 – 0930	Selection & Design of Artificial Lift Applicable Methods in Area • ESPs • Gas Lift • PCPs • Beam Pumps • Hydraulic Pumps • Description & Restrictions for Application in the Area
0930 – 0945	Break
0945 – 1045	Perforating Guns • Types Maximum Penetration
1045 – 1230	Perforating (cont'd) Selection Criteria
1230 – 1245	Break
1245 – 1420	Production Logging for Monitoring & Detection of Problem Short Presentation & Selection Criteria to Achieve the Well's Demands
1420 – 1430	Recap
1430	Lunch & End of Day Two

Day 3: Wednesday, 09th of October 2024

0730 – 0930	Formation Damage Causes & Identification • Drilling Period
0930 – 0945	Break
0945 – 1045	Formation Damage (cont'd) W.O Period • Production Period
1045 – 1230	Matrix Acidizing Formation Damage Removal • Detect Reasons for Skin Damage • Select the Best Method for Removal
1230 – 1245	Break

1245 – 1420	Matrix Acidizing (cont'd) <i>Criteria for Acid Mixture • Lab Testing Prior Mixing & Pumping</i>
1420 – 1430	Recap
1430	<i>Lunch & End of Day Three</i>

Day 4: Thursday, 10th of October 2024

0730 – 0930	Hydraulic Fracturing <i>Concept, Programs & Applications • Testing Prior Execution of Fracturing</i>
0930 – 0945	<i>Break</i>
0945 – 1100	Hydraulic Fracturing (cont'd) <i>Preparations for Fracturing</i>
1100 – 1230	Sand Control <i>Causes, Treatments & Installation of Sand Screens with Completion</i>
1230 – 1245	<i>Break</i>
1245 – 1345	Isolation of Wet Zones <i>Reasons for W.O. Methods & Economics</i>
1345 – 1400	Course Conclusion
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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