

**COURSE OVERVIEW DE0419-4D**  
**Wellhead & Completion Equipment**

**Course Title**

Wellhead & Completion Equipment

**Course Date/Venue**

October 14 - 17, 2024/Al Aziziya Hall, The Proud Hotel  
 Al Khobar, Al Khobar, KSA

**Course Reference**

DE0419-4D

**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 is designed to provide participants with a detailed and up-to-date overview of wellhead and completion equipment. It covers the components and types of wellheads, CHH/THS/Tubing hangers and suspension systems; the wellhead connections, wellhead selection criteria, BPV, TWCV, valve removal plugs, running tools, testing tools, lubricator and etc.; the components of Xmas trees and valves; the various types of Xmas trees, oil wells, gas wells and dual completions; and the completion string components, packer systems, sliding sleeves, side pocket mandrels, landing nipples and SSSV and other critical components.



During this interactive course, participants will learn the fundamentals of artificial lift types, ESP pumps, surface components, gas lift completions, design principles, rod pumps, PCP pumps and jet pumps; the intelligent completion string components, ICD's, ICV's and premium port sleeves; the multi-lateral completions, completions for sand control operations and completions for multi-stage fracturing operations; the multi-lateral completions, MLT well classifications and MRC well completions; the completions for sand control operations and completions with gravel pack for open-hole and cased-hole; the liners, stand-alone screens and expandable systems; the completions for multi-stage fracturing operations; and the types of open hole packer systems, sleeves and ball activated ports.



## Course Objectives

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

- Apply and gain a good working knowledge on wellhead and completion equipment
- Identify the components and types of wellheads including CHH/THS/Tubing hangers and suspension systems
- Recognize wellhead connections, wellhead selection criteria, BPV, TWCV, valve removal plugs, running tools, testing tools, lubricator and etc.
- Describe the components of Xmas trees and valves as well as the various types of Xmas trees that include oil wells, gas wells and dual completions
- Identify completion string components comprising of packer systems, sliding sleeves, side pocket mandrels, landing nipples and SSSV including other critical components
- Discuss the fundamentals of artificial lift types covering ESP pumps, surface components, gas lift completions, design principles, rod pumps, PCP pumps and jet pumps
- Describe the intelligent completion string components that include ICD's, ICV's and premium port sleeves
- Differentiate multi-lateral completions, completions for sand control operations and completions for multi-stage fracturing operations
- Employ multi-lateral completions including MLT well classifications and MRC well completions
- Demonstrate completions for multi-stage fracturing operations and describe the types of open hole packer systems, sleeves and ball activated ports
- Carryout completions for sand control operations and completions with gravel pack for open-hole and cased-hole as well as identify liners, stand-alone screens and expandable systems

## 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 wellhead and completion equipment for drilling engineers, technologists, service personnel, and others involved directly or indirectly with the planning passing with wellhead and programming of completion in addition to related workover issues.

## 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

### 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.

### 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. Hossam Mansour** is a **Senior Drilling & Petroleum Engineer** with almost **25 years** of **Offshore & Onshore** experience within the **Refinery, Petroleum** and **Oil & Gas** industries. His expertise covers the areas of **Drill-String** Design, Failure Prevention & Optimization, Advanced **Drilling** Practices, **Horizontal & Directional Drilling** (Planning, Techniques & Procedures), **Horizontal & Multilateral Drilling**, **Directional & Horizontal Drilling** Techniques & Procedures, **Directional Drilling, Horizontal & Multilateral Drilling**, Advanced **Drilling** Technology, **Drilling & Workover** Operations, **Offshore Drilling & Testing**, **Drilling & Completion Fluids**, Extended Reach Drilling (ERD), **Cementing** Operations, **Cementing** Equipment, **Cement Slurry Volumes**, **Casing, Directional & Horizontal Well** (Planning, Techniques & Procedures), **Horizontal & Multilateral Wells**, **Horizontal Well Control**, **Horizontal & Multilateral Wells** (Analysis & Design), **Directional, Horizontal Well** Performance & Optimization, Geological & Engineering Aspects of **Horizontal Wells**, **Sucker Rod Pumping** System, **SRP** Maintenance, **Rod Pumping** Optimization, **Rod Lift** Method, **Beam Pump**, **Well Production Control & Management**, **Rigging**, **Tubular Handling**, **HPHT**, **Well Stimulation**, **Well Cleaning**, **Well Testing Analysis & Design**, **Well Control**, **Well Reconciliation**, **Drilling Water Wells Design & Operations**, **Coiled Tubing Perforating Operations**, **Gas Lift Operations**, **ESP Design & Operation**, **Tubing**, **Well Heads**, **Drill Stem Test (DST) Operations**, **Offshore Drilling** and **Drill String**. Further, he is also a well-versed in **Workover Rigs**, **Open & Cased Hole Logging**, **Wire Line Perforations**, **FRAC Design & Operations**, **Log Interpretation**, **Stuck Pipe Prevention**, **Fishing Operations**, **Tools & BHA Design** and **Rig & Rigless Completion Operations**. He is currently the **Operations General Manager** of **IPR Energy Group-International Oilfield Services**, where-in he is managing, planning, directing and coordinating the operations of companies and responsible for formulating policies, managing daily operations and planning the use of materials.

During his career life, Mr. Mansour held significant positions such as the **Operations General Manager**, **Drilling Engineering Manager**, **Drilling Superintendent**, **Drilling & Workover Superintendent**, **Senior Drilling Supervisor**, **Drilling & Workover Supervisor**, **Night Drilling Supervisor**, **Land Rig Drilling Supervisor**, **Senior Drilling Engineer**, **Senior Drilling Consultant**, **Trainer/Instructor** and **Cement Operator** for numerous international companies like the **Saudi ARAMCO**, **PetroSannan-JV NaftoGaz**, **PetroShahd**, **ENAP Sipetrol**, **NAFTOGAZ**, **Romanna**, **Apache**, **Khalda Petroleum Company**, **RWE Dea AG Co.**, **SUCO (Suez Oil Company)** and **Halliburton**.

Mr. Mansour has a **Bachelor's** degree in **Petroleum Engineering** with the major in **Drilling, Production & Reservoir**. Further, he is a **Certified Instructor/Trainer** and a **Certified Internal Verifier/Assessor/Trainer** by the **Institute of Leadership & Management (ILM)**. Moreover, he is a member of the **Society of Petroleum Engineers (SPE)** and has delivered innumerable technical courses, related sciences and studies, seminars, workshops and conferences worldwide.





**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: Monday, 14<sup>th</sup> of October 2024**

0730 – 0800	Registration & Coffee
0800 – 0815	Welcome & Introduction
0815 – 0830	<b>PRE-TEST</b>
0830 – 0900	<b>Introduction to Wellheads</b>
0900 – 0930	<b>Components of Wellheads</b>
0930 – 0945	Break
0945 – 1015	<b>Types of Wellheads (Spools, Compact, etc.)</b>
1015 – 1045	<b>CHH/THS/Tubing Hangers</b>
1045 – 1115	<b>Wellheads Suspension Systems</b>
1115 – 1145	<b>Wellhead Connections (Seals, Clamps, Flanges, etc.)</b>
1145 – 1215	<b>Wellhead Selection Criteria</b>
1215 – 1230	Break
1245 – 1315	<b>BPV, TWCV, Valve Removal Plugs, etc.</b>
1315 – 1345	<b>Running Tools, Testing Tools, Lubricator, etc.</b>
1345 – 1420	<b>Xmas Trees</b>
1420 – 1430	<b>Recap</b>
1430	Lunch & End of Day One

**Day 2: Tuesday, 15<sup>th</sup> of October 2024**

0730 – 0800	<b>Various Types of Xmas Trees Explained – Oil Wells, Gas Wells, Dual Completions</b>
0800 – 0830	<b>Components of Xmas Trees &amp; Valves</b>
0830 – 0930	<b>Completion String Components</b>
0930 – 0945	Break
0945 – 1030	<b>Packer Systems</b>
1030 – 1100	<b>Sliding Sleeves</b>
1100 – 1200	<b>Side Pocket Mandrels</b>
1200 – 1230	<b>Landing Nipples (All Types)</b>
1230 – 1245	Break
1245 – 1315	<b>SSSV</b>
1315 – 1345	<b>Other Critical Components</b>





1345 – 1420	<i>Fundamentals of Artificial Lift Types</i>
1420 – 1430	<i>Recap</i>
1430	<i>Lunch &amp; End of Day Two</i>

**Day 3: Wednesday, 16<sup>th</sup> of October 2024**

0730 – 0800	<i>ESP Pumps &amp; Surface Components, Gas Lift Completion &amp; Design Principles</i>
0800 – 0900	<i>Rod Pumps, PCP Pumps &amp; Jet Pumps</i>
0900 – 0930	<i>Intelligent Completion String Components</i>
0930 – 0945	<i>Break</i>
0945 – 1030	<i>ICD's</i>
1030 – 1100	<i>ICV's</i>
1100 – 1200	<i>Premium Port Sleeves</i>
1200 – 1230	<i>Manara Project Example &amp; Case Study</i>
1230 – 1245	<i>Break</i>
1245 – 1315	<i>Multi-lateral Completions</i>
1315 – 1345	<i>MLT Well Classifications</i>
1345 – 1420	<i>MRC Well Completions</i>
1420 – 1430	<i>Recap</i>
1430	<i>Lunch &amp; End of Day Three</i>

**Day 4: Thursday, 17<sup>th</sup> of October 2024**

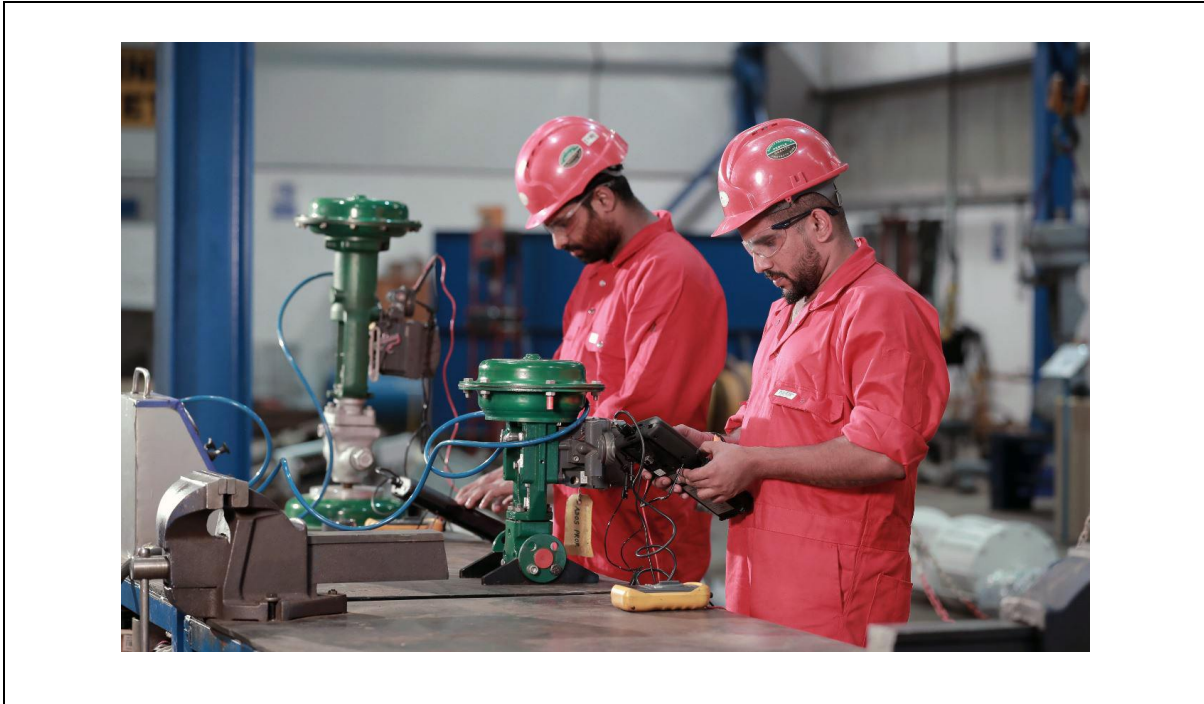
0730 – 0815	<i>Completions for Multi-stage Fracturing Operations</i>
0815 – 0815	<i>Types of Open Hole Packer Systems</i>
0900 – 0930	<i>Sleeves</i>
0930 – 0945	<i>Break</i>
0945 – 1015	<i>Ball Activated Ports</i>
1015 – 1045	<i>Completions for Sand Control Operations</i>
1045 – 1115	<i>Liners</i>
1115 – 1200	<i>Stand-alone Screens</i>
1200 – 1230	<i>Expandable Systems</i>
1230 – 1245	<i>Break</i>
1245 – 1345	<i>Completions with Gravel Pack for Open-hole &amp; Cased-hole</i>
1345 – 1400	<i>Course Conclusion</i>
1400 – 1415	<i>POST-TEST</i>
1415 – 1430	<i>Presentation of Course Certificates</i>
1430	<i>Lunch &amp; 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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