

COURSE OVERVIEW DE0420
Wellhead & X-Mass Tree

Course Title

Wellhead & X-Mass Tree

Course Date/Venue

Session 1: May 12-16, 2025/Fujairah Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE

Session 2: November 02-06, 2025/Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE



Course Reference

DE0420



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.



Christmas trees are used on both sub-surface and subsea wells. It is common to identify the type of tree as either "subsea tree" or "sub-surface tree". Each of these classifications has a number of variations. The primary function of a tree is to control the flow, usually oil or gas, out of the well. A tree may also be used to control the injection of gas or water into a non-producing well in order to enhance production rates of oil from other wells.



When the well and facilities are ready to produce and receive oil or gas, tree valves are opened and the formation fluids are allowed to go through a flow line. This leads to a processing facility, storage depot and/or other pipeline eventually leading to a refinery or distribution center (for gas). Flow lines on subsea wells usually lead to a fixed or floating production platform or to a storage ship or barge, known as a floating storage offloading vessel (FSO), or floating processing unit (FPU), or floating production, storage and offloading vessel (FPSO).

This course is designed to provide participants with a detailed and up-to-date overview on the operations, maintenance and testing of x-mas tree and wellhead. It covers the various wellhead equipment, x-mas tree, tubing hanger, production packages and landing nipples; the barriers principles and well safety; the hydraulic barriers, mechanical barriers, subsurface control valves, packer setting and testing; flanging of the wellhead, casing head housing, tubing spool hanger, checks and tests; the valves and actuators, wellhead safety valves and control systems; and the operating procedures and working under safe conditions.

Course Objectives

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

- Apply and gain an in-depth knowledge on x-mas tree and wellhead operations, maintenance and testing in accordance with API 6A
- Discuss the various wellhead equipment as well as x-mas tree, tubing hanger, production packers and landing nipples
- Practice barriers principles and well safety and identify hydraulic barriers, mechanical barriers, subsurface control valve, packer setting and testing
- Discuss flanging of the wellhead, casing head housing, tubing spool hanger, check and tests
- Recognize valves, actuators, wellhead safety valves and control system
- Employ proper operating procedures to work under safe conditions

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 complete and up-to-date overview of X-mas tree and wellhead for those who are involved in its operations, maintenance and testing. Field operations, production, maintenance, petroleum, reservoir and field engineers, wellhead maintenance supervisors, wellhead operations supervisors and other staff will definitely benefit from this course.

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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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\$ 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.

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:

	<p>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.</p> <p>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.</p> <p>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.</p>
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Accommodation

Accommodation is not included in the course fees. However, any accommodation required can be arranged at the time of booking.

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	Wellhead Equipment
0930 – 0945	Break
0945 – 1100	X-mas Tree
1100 – 1230	Tubing Hanger
1230 – 1245	Break
1245 – 1420	Tubing Hanger (cont'd)
1420 - 1430	Recap
1430	Lunch & End of Day One

Day 2

0730 – 0930	Production Packers & Landing Nipples
0930 – 0945	Break
0945 – 1045	Barriers Principles & Well Safety
1045 – 1230	Hydraulic Barriers
1230 – 1245	Break
1245 – 1420	Hydraulic Barriers (cont'd)
1420 - 1430	Recap
1430	Lunch & End of Day Two

Day 3

0730 – 0930	Mechanical Barriers Including Subsurface Control Valve, Packer Setting and Testing
0930 – 0945	Break
0945 – 1045	Flanging of the Wellhead
1045 – 1230	Casing Head Housing
1230 – 1245	Break
1245 – 1420	Casing Head Housing (cont'd)
1420 - 1430	Recap
1430	Lunch & End of Day Three

Day 4

0730 – 0930	Tubing Spool Hanger
0930 – 0945	Break
0945 – 1045	Checks & Tests
1045 – 1230	Valves & Actuators
1230 – 1245	Break
1245 – 1420	Valves & Actuators (cont'd)
1420 - 1430	Recap
1430	Lunch & End of Day Four

Day 5

0730 – 0930	<i>Wellhead Safety Valves & Control System</i>
0930 – 0945	<i>Break</i>
0945 – 1045	<i>Wellhead Safety Valves & Control System (cont'd)</i>
1045 – 1230	<i>Operating Procedures to Work Under Safe Conditions</i>
1230 – 1245	<i>Break</i>
1245 – 1345	<i>Operating Procedures to Work Under Safe Conditions (cont'd)</i>
1345 – 1400	<i>Course Conclusion</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

Mari Nakintu, Tel: +971 2 30 91 714, Email: mari1@haward.org