

COURSE OVERVIEW DE1064 Cementing Operations

Course Title

Cementing Operations

Course Date/Venue

Session 1: January 26-30, 2025/Meeting Plus 8, City Centre Rotana Doha Hotel, Doha, Qatar

Session 2: July 27-31, 2025/Meeting Plus 8, City Centre Rotana Doha Hotel, Doha, Qatar

Course Reference

DE1064



Course Duration/Credits

Five days/3.0 CEUs/30 PDHs

Course Description

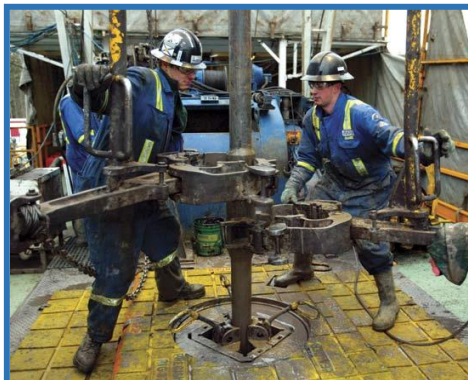


This practical and highly-interactive course includes real-life case studies where participants will be engaged in a series of interactive small groups and class workshops.

Cementing is a fundamental element of effective well construction. By understanding cement chemistry, additive use, and lab procedures the participants will be able to build a solid foundation to design and execute cement jobs. Mud removal and centralization will be taught so that the participants can apply effective processes to ensure cement job success.



Special purpose cements will be discussed in a way to show when they should and should not be used, as well as how they can be used to solve challenges encountered in complex and extreme well environments. Foamed, engineered particle sized, flexible, and salt cements will also be covered in detail.



During this course, participants will practice cementing calculations, as well as job design exercises and cement evaluation methods using real-life examples. Liner cementing and stage cementing jobs will be developed in the classroom. Cement design software will also be demonstrated.



Course Objectives

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

- Apply and gain an in-depth knowledge on cementing operations
- Demonstrate operational knowledge and understanding on how to use cementing additives properly to improve and reduce job costs
- Demonstrate operational knowledge and understanding on how cements are classified
- Demonstrate operational knowledge and understanding on how to interpret laboratory test results
- Perform primary cementing operations to include casing cementing, liner cementing, multi-stage cementing
- Conduct remedial squeeze jobs and selection of squeeze tools
- Perform remedial cementing plug operations to improve overall job success
- Perform the overall cementing operation i.e. perform primary and remedial cementing operations to include: casing cementing, liner cementing, multi-stage cementing, plug cementing, the use of cementing additives properly to improve and reduce job costs, interpret laboratory test results, conduct squeeze jobs and selection of squeeze tools
- Perform cement plug operations to improve overall job success and interpret cement sheath evaluation logs, all under minimum supervision
- Demonstrate operational knowledge and understanding on how to calculate cement slurry volumes the following types of casing jobs primary casing, intermediate casing, production casing and liners know how to calculate differential pressure to bump the cement plug and to calculate displacement volumes
- Demonstrate operational knowledge and understanding on how to identify cementing float equipment
- Discuss cementing operations, cement rheology, cementing equipment and cementing calculations and laboratory testing
- Explain well parameters to be considered for cementation, preparation of well and successful execution and how to use cementing additives properly to improve and reduce job costs
- Describe how cements are classified and how to interpret laboratory test results
- Demonstrate primary cementing operations, casing cementing, linear cementing, multi-stage cementing, remedial cementing and plug cementing
- Conduct squeeze jobs and selection of squeeze tools, perform cement plug operations to improve overall job, interpret cement sheath evaluation logs and calculate cement slurry volumes
- Explain types of casing jobs, primary casing, intermediate casing and production casing and liners.
- Calculate differential pressure to pump the cement plug and calculate displacement volumes



- Discuss ultra light weight cements, horizontal well cementing, evaluation of the job, reasons for failures and cement spacers and flushes
- Describe casing and squeeze tool hydraulics, tuned cementing, right angle set cement, API connection ratings and formulas and H.P.H.T cementing technology
- Explain squeeze techniques, squeezing fractured zones, packer squeeze tools, balance plug method and cementing problems

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 cementing operations for subsurface supervisors, senior engineers, mud engineers, cementing engineers, drilling engineers, drilling representatives, workover and completions personnel, drilling contractors, cement company personnel and for those who are responsible in cementing operations.

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

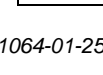
In an unlikely event, the course instructor may modify the above training methodology before or during the course for technical reasons.

Course Fee

US\$ 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 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 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 Asset Management Principles, Risks & Economics, Petroleum Economics, 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, 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

0730 - 0800	Registration & Coffee
0800 - 0815	Welcome & Introduction
0815 - 0830	PRE-TEST
0830 - 0900	Introduction to Cementing Operations
0900 - 0915	Cement Rheology
0915 - 0930	Cementing Equipment
0930 - 0945	Break
0945 - 1030	Cementing Calculations & Laboratory Testing
1030 - 1130	Well Parameters to be Considered for Cementation
1130 - 1230	Preparation of Well & Successful Execution
1230 - 1245	Break
1245 - 1345	How to Use Cementing Additives Properly to Improve & Reduce Job Costs
1345 - 1420	How Cements are Classified
1420 - 1430	Recap
1430	Lunch & End of Day One

Day 2

0730 - 0830	How to Interpret Laboratory Test Results
0830 - 0900	Primary Cementing Operations
0900 - 0930	Casing Cementing
0930 - 0945	Break
0945 - 1030	Linear Cementing
1030 - 1130	Multi-Stage Cementing
1130 - 1230	Remedial Cementing
1230 - 1245	Break
1245 - 1345	Plug Cementing
1345 - 1420	Conduct Squeeze Jobs & Selection of Squeeze Tools
1420 - 1430	Recap
1430	Lunch & End of Day Two

Day 3

0730 - 0830	Perform Cement Plug Operations to Improve Overall Job Success
0830 - 0900	Interpret Cement Sheath Evaluation Logs
0900 - 0930	Calculate Cement Slurry Volumes
0930 - 0945	Break
0945 - 1030	Types of Casing Jobs
1030 - 1130	Primary Casing
1130 - 1230	Intermediate Casing
1230 - 1245	Break
1245 - 1345	Production Casing & Liners
1345 - 1420	Calculate Differential Pressure to Pump the Cement Plug
1420 - 1430	Recap
1430	Lunch & End of Day Three





Day 4

0730 - 0830	<i>Calculate Displacement Volumes</i>
0830 - 0900	<i>Cementing Float Equipment</i>
0900 - 0930	<i>Ultra Light Weight Cements</i>
0930 - 0945	<i>Break</i>
0945 - 1030	<i>Horizontal Well Cementing</i>
1030 - 1130	<i>Evaluation of the Job, Reasons for Failures</i>
1130 - 1230	<i>Cement Spacers & Flushes</i>
1230 - 1245	<i>Break</i>
1245 - 1345	<i>Casing & Squeeze Tool Hydraulics</i>
1345 - 1420	<i>Tuned Cementing</i>
1420 - 1430	<i>Recap</i>
1430	<i>Lunch & End of Day Four</i>

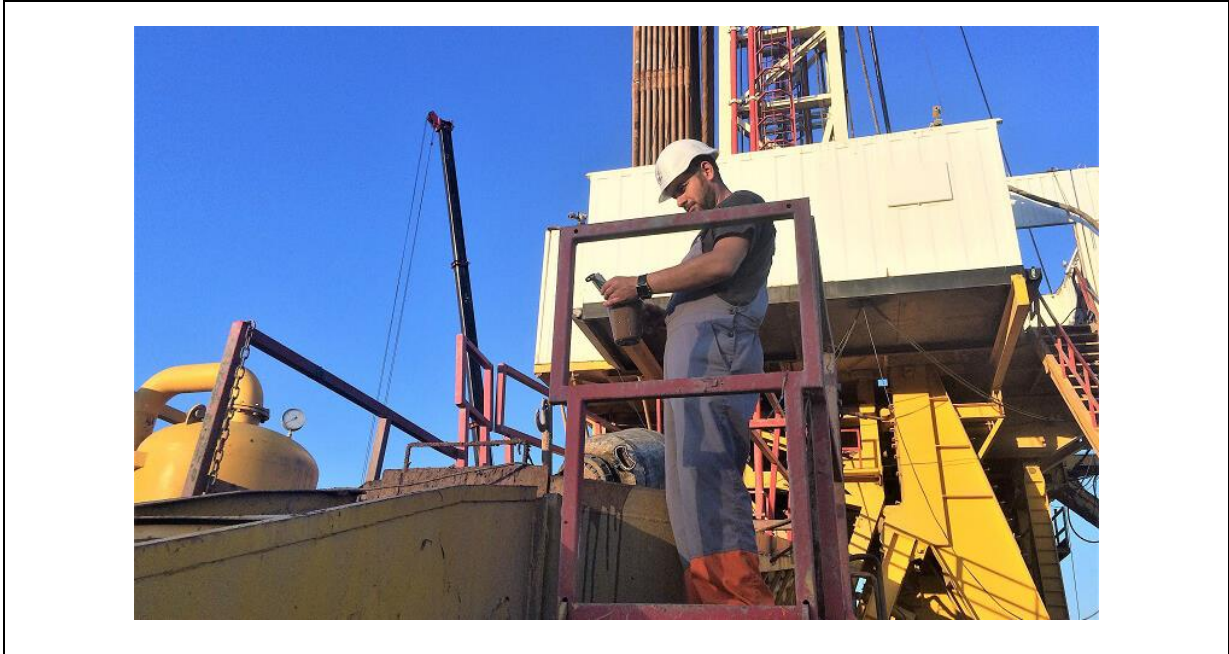
Day 5

0730 - 0830	<i>Right Angle Set Cement</i>
0830 - 0900	<i>API Connection Ratings & Formulas</i>
0900 - 0930	<i>H.P.H.T Cementing Technology</i>
0930 - 0945	<i>Break</i>
0945 - 1030	<i>Squeeze Techniques</i>
1030 - 1130	<i>Squeezing Fractured Zones</i>
1130 - 1230	<i>Packer Squeeze Tools</i>
1230 - 1245	<i>Break</i>
1245 - 1315	<i>Balance Plug Method</i>
1315 - 1345	<i>Cementing Problems</i>
1345 - 1400	<i>Course Conclusion</i>
1400 - 1415	<i>POST-TEST</i>
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

Reem Dergham, Tel: +974 4423 1327, Email: reem@haward.org

