

COURSE OVERVIEW DE0400
Completion & Production Engineering

Course Title

Completion & Production Engineering
 Industry

Course Date/Venue

Session 1: May 26-30, 2025/Fujairah Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE

Session 2: November 16-20, 2025/Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE

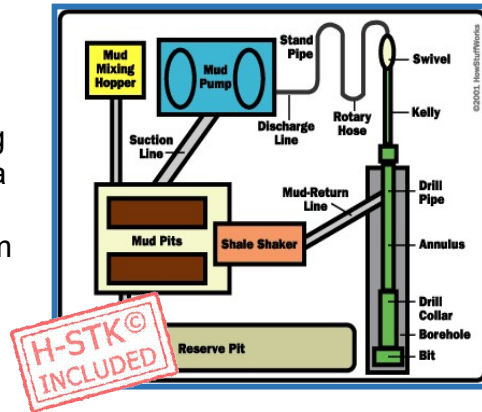
Course Reference

DE0400

Course Duration

Five days

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.

Chemical additives for drilling and completion are an essential part in the economic exploration for and development of both crude oil and natural gas. Today, mud systems must both perform and aid downhole tools under more arduous conditions than ever before. Directional, Extended reach and Horizontal wells place more emphasis on a better understanding of mud rheology as well as temperature effects on what are complex colloidal mixtures. Environmental concerns and constraints have placed greater emphasis on a better understanding of both individual products and complete mud systems when discharged into a particular environment.

This course is intended to provide an insight into the various types of industrial products that are currently used in formulating drilling and completion fluids as well as their weaknesses and strengths from both a technical and environmental viewpoint. Laboratory and field evaluation methods will be discussed, along with the role of rheology and filtration in providing the optimum parameters for today's drilling and completion fluid requirements. Environmental concerns of National Governments will be discussed along with the various methods that are used to define environmental impact including current options for waste discharge.

Course Objectives

Upon completion of this course, you will gain an understanding of the wide diversity of chemicals and formulated blends that are used in drilling and completion fluids. You will learn why these chemicals are used, how they are evaluated and deployed and what impact they may have on the environment.

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 aims to provide a common understanding of oilfield drilling and completion chemicals—their selection and end use—to petroleum engineers, chemists and other technologists. Project engineers, non-technical managerial staff, persons responsible for product development and evaluation as well as field personnel who are responsible for chemicals use would all benefit. In addition, persons responsible for marketing chemicals into the industry should also find the course valuable.

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\$ 8,000 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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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 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. Steve Ehrenberg, PhD, MSc, BSc, is a Senior Geologist & Reservoir Engineer with 45 years of extensive experience within the Oil & Gas, Petrochemical and Refinery industries. His wide experience covers in the areas of Core & Log Integration, Water Saturation, Coring & Core Analysis, Special Core Analysis, Log Interpretation, Cased-Hole Logging, Core Calibration, Core Analysis, Core-to-Log Data Integration (SCAL), Wireline Logging, Mud Logging, Cased Hole Logging, Production Logging, Well Logging, Reservoir

Management, Reservoir Appraisal & Development, Carbonate Reservoir Management, Fractured Reservoirs Evaluation & Management, Naturally Fractured Reservoir, Integrated Carbonate Reservoir Characterization, Geological Modelling, Reservoir Characterization, Geomodelling, Development Geology, Petroleum Geology, Exploration Production, Structural Geology, Wellsite Geology, Analytic Modelling Methods, Sedimentary Geology, Geophysics, Geophysical Exploration, Reservoir Engineering, Reservoir Engineering Applications, Reservoir Engineering & Stimulation, Reservoir Characterization, Clastic Reservoir, Carbonate Reservoir Petrology, Subsurface Facies Analysis, Borehole Images, Geophysical Methods, Oil & Gas Exploration, Marine & Petroleum Geology, Reservoir Performance Using Classical Methods, Fractured Reservoir Evaluation & Management, Reservoir Surveillance & Management, Reservoir Monitoring, , Reservoir Volumetrics, Water Drive Reservoir, Reservoir Evaluation, Well Surveillance, Well Testing, Well Testing & Oil Well Performance, Well Log Interpretation (WLI), Rock Physics & Seismic Data, Formation Evaluation, Well Testing & Data Interpretation, Pore Pressure Prediction and Oil & Gas Reserves Estimations, Well Workover Supervision, Description and Prediction of Reservoir Quality, Sequence Stratigraphy of Carbonate Systems and Introductory Geology.

During his career life, Dr. Ehrenberg held significant positions and dedication as **Consultant, Professor, Senior Reservoir Geologist, Senior Geologist, Research Geologist, Associate Professor, Assistant Professor and Senior Instructor/Trainer** from various international companies and universities such as the Badley Ashton & Associates Ltd., Khalifa University of Science and Technology, Sultan Qaboos University, PanTerra Geoconsultants B.V, UAE University, Statoil, Stavanger, Shell Development Company and Northern Illinois University.

Dr. Ehrenberg has a **PhD, Master's and Bachelor's** degree in **Geology** from the **University of California, USA** and **Occidental College, USA**, respectively. Further, he is a **Certified Trainer/Assessor/Internal Verifier** by the **Institute of Leadership & Management (ILM)**, a **Certified Instructor/Trainer** and has delivered numerous trainings, workshops, courses, seminars and conferences internationally.

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 - 0745	<i>Registration & Coffee</i>
0745 - 0800	<i>Welcome & Introductions</i>
0800 - 0815	PRE-TEST
0815 - 0845	Introduction
0845 - 0945	Well Construction Overview
0945 - 1000	<i>Break</i>
1000 - 1115	Drilling and Completion Chemicals Market
1115 - 1215	Market size, role of service company, operator and chemical suppliers
1215 - 1230	<i>Break</i>
1230 - 1330	Functions of Drilling and Completion Fluids
1330 - 1430	Field mud checks and daily report forms
1430	<i>Lunch & End of Day One</i>

Day 2

0730 - 0830	Laboratory mixing and evaluation methods
0830 - 0930	Product specifications and standards
0930 - 0945	<i>Break</i>
0945 - 1100	Solids Control and Contaminants
1100 - 1215	The Importance of Rheology
1215 - 1230	<i>Break</i>
1230 - 1330	Suspension
1330 - 1430	Hole Cleaning
1430	<i>Lunch & End of Day Two</i>

Day 3

0730 - 0830	Hydraulics
0830 - 0930	The Importance of Filtration <i>Filter cake quality • Water Based Mud Systems • The types of chemicals used in these systems, their chemistry and effect (colloidal combinations of inorganic minerals and organic polymers)</i>
0930 - 0945	<i>Break</i>
0945 - 1100	Organic Based Mud Systems
1100 - 1215	Advantages and disadvantages vs. water based fluids
1215 - 1230	<i>Break</i>
1230 - 1330	Oil and synthetic organic based fluids
1330 - 1430	The types of chemicals used in these systems, their chemistry and effect
1430	<i>Lunch & End of Day Three</i>

Day 4

0730 - 0930	<i>Drill-In and Completion Fluids</i>
0930 - 0945	<i>Break</i>
0945 - 1100	<i>Aims, designs and beneficial aspects</i>
1100 - 1215	<i>Completion Brines</i>
1215 - 1230	<i>Break</i>
1230 - 1430	<i>Environmental Aspects of Drilling/Completion Chemicals</i>
1430	<i>Lunch & End of Day Four</i>

Day 5

0730 - 0930	<i>Testing Criteria and Validity</i>
0930 - 0945	<i>Break</i>
0945 - 1100	<i>Current Western Perceptions, Rules and Legislation</i>
1100 - 1230	<i>The Future for Offshore and Onshore</i>
1230 - 1245	<i>Break</i>
1245 - 1345	<i>Summary and Question/Answer Session</i>
1345 - 1400	<i>POST-TEST</i>
1400 - 1430	<i>Presentation of 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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