COURSE OVERVIEW DE1050
Directional Drilling & Surveying

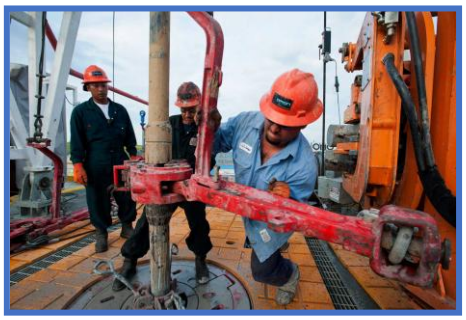
Course Title
Directional Drilling & Surveying

Course Date/Venue
Session 1: April 19-23, 2026/Meeting Plus 9, City Centre Rotana, Doha Qatar
Session 2: September 27-October 01, 2026/Meeting Plus 9, City Centre Rotana, Doha Qatar

Course Reference
DE1050

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.

This course is designed to provide participants with a detailed and up-to-date overview of directional drilling and surveying. It covers the directional drilling fundamentals and terminology; the fundamentals, applications and limitations; the terminology, well objectives and target issues; the well planning positioning and coordinating systems; the proper surveying and advanced well planning; the survey calculation methods; the anti-collision and well planning; and the surveying tools, MWD, LWD, mudlogging and downhole equipment.

During this interactive course, participants will learn the drilling tools and deflection methods; the drilling motors overview; the BHA design and rotary steerable systems; the well planning and path design; the directional well path design; the horizontal well planning and calculations; the horizontal drilling planning and drill string design; the torque, drag, shocks and vibrations; the hole cleaning and wellbore stability; and the multilateral wells, geosteering and directional drilling problems and solutions.

Course Objectives

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

- Apply and gain in-depth knowledge on directional drilling and surveying
- Discuss the directional drilling fundamentals and terminology comprising of fundamentals, applications and limitations as well as terminology, well objectives and target issues
- Carryout well planning positioning and coordinate systems as well as employ surveying and advanced well planning
- Apply survey calculation methods and discuss anti-collision and well planning
- Recognize the surveying tools, MWD, LWD, mudlogging and downhole equipment
- Identify the drilling tools, deflection methods and drilling motors
- Illustrate BHA design and rotary steerable systems including well planning and path design
- Employ directional well path design, horizontal well planning and calculations, horizontal drilling planning and drill string design
- Recognize torque, drag, shocks and vibrations as well as hole cleaning and wellbore stability
- Discuss the multilateral wells, geosteering, directional drilling problems and solutions

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 directional drilling and surveying for drilling engineers, drilling supervisors, directional drillers, and service company personnel with basic drilling engineering skills.

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: -

- 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.

- 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$ 8,500 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 Instructor

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. Samer Shukri, BSc, IADC, IWCF, is a **Senior Drilling & Petroleum Engineer** with over **25 years** of **offshore** and **onshore** experience in the **Oil** & **Gas**, **Refinery** & **Petrochemical** industries. His wide expertise includes **Enhanced Oil Recovery** (**EOR**), **Improved Oil Recovery** (**IOR**), **Oil Recovery** Enhancement Techniques, **Water Filtration** Systems & **Oil Recovery** System, **IADC WELLSHARP Drilling Operations Supervisor** Combination Both Surface & Subsea Stack, **IWCF Drilling Well Control**, **WellCAP** Driller, **WellCAP** Supervisor, **Well Control & Blow Out Prevention**, **Workovers & Completions**, **Well Completion** Design & Operations, **Well Intervention**, **Well Life Cyle**, **Well Stimulation** & **Workover** Planning, **Workover** Practices, **Workover** Operations, **Well Integrity** System, **Well Control**, **Oil & Water Wells**, **Workover/Remedial** Operations & **Heavy Oil** Technology, Plug & Abandonment of **Oil & Gas Wells**, **Petroleum** Engineering, **Open Hole & Cased Hole Logs**, **Petroleum Risk & Decision** Analysis, **Well Testing** Analysis, **Stimulation** Operations, **Coiled Tubing** Operations, **Coiled Tubing Equipment**, **Rigless** Operations, **Reserves Evaluation**, **Reservoir Fluid** Properties, **Reservoir** Engineering & Simulation Studies, **Reservoir** Monitoring, **Geology & Reservoir** Engineering, **Artificial Lift Design**, **Gas** Operations, **Applied Water** Technology, **Oil & Gas Production**, **X-mas Tree** & **Wellhead** Operations & **Testing**, **Wellbore Design & Construction**, **Drilling Fluids & Solids Control**, **Drilling Fluids & Cementing** Operations, **Drilling Practices & Techniques**, **Stuck Piping & Fishing** Operations, **Rig Equipment** Maintenance & Inspection, **Rigging & Lifting** Operations, **Artificial Lift** Systems (**Gas Lift**, **ESP** and **Rod Pumping**), **Well Cementing**, **Oil Field Cementing**, **Production Optimization**, **PLT** Correlation, **Slickline** Operations, **Well Testing**, **Production Logging**, **Wireline Logging**, **Wireline** Technology, **Wireline Fishing** Operations, **Project Evaluation** & **Economic Analysis**. Further, he is also well-versed in Marine Environment Protection, Maritime Professional Training, Operational Audit, Improvement, Planning & Management, Climate Change & Emissions Trading Services, International Trade & Shipping, **Fitness for Service-API 579**, **Refining Process & Petroleum** Products, **OSHA** (General Industry & Construction), **IOSH** (Managing Safely, Working Safely), **HSE** Standards & Procedures in the Oilfield, HSE Principles, Incident Prevention & Incidents, Working at Height, **First Aid**, **H2S** Awareness, Defensive Driving, Risk Assessment, Authorized Gas Tester (**AGT**), Confined Space Entry (**CSE**), Root Cause Analysis (**RCA**), Negotiation & Persuasion Skills, **ISO-9001** Quality Management System (**QMS**), ISO-14001 Environmental Management System (**EMS**), **ISO-45001** Occupational Health and Safety Management System (**OHSMS**), **ISO-17020** Conformity Assessment, ISO/TS-29001 Quality Management System, **IOS-50001**-Energy Management System (**EnMS**) and Basic Offshore Safety Induction & Emergency. Currently, he is actively involved in **Project Management** with special emphasis in **commissioning of new wells**, **completion design**, **well integrity** management, **production technology** and field optimization, performing conceptual studies, economic analysis with risk assessment and field development planning.

During his career life, Mr. Samer has gained his field experience through his various significant positions and dedication as the **Senior Production Engineer**, **Well Services Department Head**, **Senior Well Services Supervisor**, **Senior Well Integrity Engineer**, **Senior HSE Engineer**, **Well Services Supervisor**, **Drilling/Workover Supervisor**, **International oil & Gas Trainer**, **Leadership & Management Instructor** and **Senior Instructor/Trainer** from the various international companies such as the ADCO, Al Furat Petroleum Company (AFPC), Syrian Petroleum Company (SPC), Petrotech, Global Horizon-UK, HDTC, Petroleum Engineers Association, STC, Basra University and Velesto Drilling Academy, just to name a few.

Mr. Samer has **Bachelor's** degree in **Petroleum Engineering**. Further, he is an a **Certified IADC WELLSHARP Instructor**, **Accredited IWCF Drilling & Well Intervention Instructor**, a **Certified Instructor/Trainer**, a **Certified Train-the-Trainer** and further delivered innumerable training courses, seminars, conferences and workshops worldwide.

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	***Directional Drilling Fundamentals & Terminology***
0930 – 0945	*Break*
0945 – 1100	***Fundamentals, Applications & Limitations***
1100 – 1215	***Terminology, Well Objectives & Target Issues***
1215 – 1230	*Break*
1230 – 1330	***Well Planning: Positioning & Coordinate Systems***
1330 – 1420	***Surveying & Advanced Well Planning***
1420 – 1430	***Recap***
1430	*Lunch & End of Day One*

Day 2

0730 – 0930	***Survey Calculation Methods***
0930 – 0945	*Break*
0945 – 1100	***Anti-Collision & Well Planning***
1100 – 1215	***Surveying Tools***
1215 – 1230	*Break*
1230 – 1300	***Wellbore Surveying & Survey Instrument***
1300 – 1330	***MWD, LWD & Mudlogging***
1330 – 1420	***Downhole Equipment***
1420 – 1430	***Recap***
1430	*Lunch & End of Day Two*

Day 3

0730 – 0930	***Drilling Tools & Wellbore Deflection Methods***
0930 – 0945	*Break*
0945 – 1030	***Drilling Motors Overview***
1030 – 1100	***Directional Bottom Hole Assemblies***
1100 – 1130	***BHA Design***
1130 – 1215	***Drilling Fluid & Hydraulics***
1215 – 1230	*Break*
1230 – 1330	***Rotary Steerable Systems***
1330 – 1420	***Well Planning & Path Design***
1420 – 1430	***Recap***
1430	*Lunch & End of Day Three*

Day 4

0730 – 0830	***Directional Well Path Design***
0830 – 0930	***Horizontal Well Planning & Calculations***
0930 – 0945	*Break*
0945 – 1100	***Horizontal Drilling Planning***

1100 – 1215	***Drill String Design***
1215 – 1230	*Break*
1230 – 1300	***Torque, Drag, Shocks & Vibrations***
1300 – 1330	***Torque & Drag Calculation***
1330 – 1420	***Hole Cleaning & Wellbore Stability***
1420 – 1430	***Recap***
1430	*Lunch & End of Day Four*

Day 5

0730 – 0930	***Hole Cleaning***
0930 – 0945	*Break*
0945 – 1100	***Well Bore Stability***
1100 – 1215	***Introduction to Multilateral Wells***
1215 – 1230	*Break*
1230 – 1300	***Geosteering***
1300 – 1330	***Directional Drilling Problems & Solutions***
1330 – 1345	***Formats & Documents***
1345 – 1400	***Course Conclusion***
1400 – 1415	***POST-TEST***
1415 – 1430	*Presentation of Course Certificates*
1430	*Lunch & End of Course*

Practical Sessions

This practical and highly-interactive course includes real-life case studies and exercises:-

Course Coordinator

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