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## Course: Drilling Fluids & Cementing

Code	City	hotel	Start	End	price	Language - Hours
757	Alula	Hotel Meeting	2025-08-10	2025-08-14	12450 SR	En - 25

### Course Objectives

- Be aware with the whole drilling operations briefly, well profiles & all used related services used in the well.
- Be aware with the drilling fluids & cementing programs based on the available well drilling programs details.
- Be aware with the design, preparing, testing & treating the DRLG Fluids while drilling the whole well sections specially the pay zone to prevent the complications due to pay zone damage, skin factor, hole cleaning .....
- Be aware with the mud properties & testing procedures @ rig site.
- Evaluate the mud problems while drilling the whole well specifically the pay zone section & how the skin factor can be controlled while drilling.
- Be aware with all differences, advantages, disadvantages & handling issues for both OBM & WBM different mud systems.
- Be aware with the design, preparing, testing & performing the cementing jobs for the whole well sections specially the pay zone to prevent the complications due to pay zone damage, skin factor, liner problems .....
- Evaluate the cement behind casing quality specially in the pay zone & the needed remedial actions in any failure's cases.
- Know a detailed idea about the completion fluid properties, problems, types, filtration, treatment ways .....
- Be aware with all cementing calculations.
- Be aware with all cementing chemicals, equipment & accessories.
- Be aware with all cementing lab test & all cement job types.
- Be aware with the cement evaluation jobs (CBL-VDL-USIT).



## Who Should Attend?

This course is intended for drilling engineers, senior drilling engineers, operations engineers, well testing engineers & operators, senior operations engineers, completion engineers, reservoir engineers, production engineers, day well site supervisors, night well site supervisors, contractors' staff & all supporting staff needing to gain an understanding of the principles and practices relevant to the drilling fluids & cementing activities.

## Training Methodology

- This interactive online training course includes the following training methodologies as a percentage of the total tuition hours
- 25% Lectures
- 30% Workshops & Work Presentations
- 20% Case Studies & Practical Exercises
- 25% Videos, Animation & General Discussions

## Course Program

### Day 1

- Drilling Well Services (Brief)
  - Drilling & WO Rigs.
  - Drilling Bits.
  - BHA & Down Hole Tools.
  - Drilling Fluids (OBM & WBM) in more details than others.
  - Casing & Cementing in more details than others.
  - Well Head Services.
  - Surveys & Logging (Open Hole & Cased Hole).
  - Cold Cutter & Hot Welding.



- Safety Alerts
- Cont. Drilling Well Services (Brief)
  - Fishing Tools & Operations.
  - Directions Drilling.
  - Cut Core (Convectional & Oriented).
  - Clean Out Scraper Runs & Completion Fluid Displacement.
  - Liner & Production CSG.
  - Well Testing.
  - Well Completions.

## Day 2

- Drilling Fluids “MUD”
  - Introduction
  - Drilling Fluids Functions
  - Main Differences between OBM & WBM.
  - OBM Treatment.
  - Different Mud Systems.
  - Mud Chemicals.
- Cont. Drilling Fluids “Mud”
  - Mud Properties.
  - Drilling Fluids Program Preparations.
  - Mud Measurements & All Related Devices.
  - General Drilling Problems in relation with the mud.
  - Mud Losses & Fluid Invasion.
  - LCM's & Cement Plugs Losses Treatment.

## Day 3

- Cont. Drilling Fluids “Mud”
  - Kicks & Well Control Issues.
  - Kill Sheet Calculations.



- Stuck Pipe & Long OH Exposure Time Effect.
- Hole Cleaning & Mud Contaminations.
- DRLG Fluids & Skin Factor Relationship while drilling operations
- Cementing
  - Introduction
  - Casing Design Brief ( (Sizes, Hole Sections, Properties, Setting Depths, Accessories, Running procedures, CSG Problems). )
  - Cementing Functions.

## Day 4

- Cont. Cementing
  - Dry Cement Classes.
  - Cementing Chemicals & Functions.
  - Cementing Equipment, Tools, Accessories, Specifications, Setup, Rigging Up Procedures, related problems ...).
- HSE Alerts
- Cont. Cementing
  - Cement Unit Components.
  - Cementing Program & Lab Test Preparations.
  - Cementing Jobs Types (On Fly & Batch Mixed).
  - Liner Cement Job Procedures & All Related Problems with solutions.

## Day 5

- Cementing Quality Evaluation & its importance while the well life.
  - CBL.
  - VDL.
  - USIT
  - CSG Punch & CMT Squeeze Jobs.
  - ST CMT Plugs (OH & CH).
  - Whip Stock Techniques.



- Different real CH logs & problems evaluation



The Scandinavian Academy for Training Center adopts the latest scientific and professional methodologies in training and human resource development, aiming to enhance the efficiency of individuals and organizations. Training programs are delivered through a comprehensive approach that includes:

- Theoretical lectures supported by PowerPoint presentations and visual materials (videos and short films).
- Scientific evaluation of participants before and after the program to measure progress and knowledge acquisition.
- Brainstorming sessions and practical role-playing to simulate real-life scenarios.
- Case studies tailored to align with the training content and participants work nature.
- Assessment tests conducted at the end of the program to evaluate the achievement of training objectives.

Each participant receives the training material (both theoretical and practical) in printed form and saved on a CD or flash drive. Detailed reports, including attendance records, final results, and overall program evaluations, are also provided.

Training materials are prepared professionally by a team of experts and specialists in various fields. At the end of the program, participants are awarded a professional attendance certificate, signed and accredited by the Scandinavian Academy for Training Center.

### **Program Timings:**

- 9:00 AM to 2:00 PM

### **The program includes:**

- A daily buffet provided during the sessions to ensure participants comfort.
- A closing ceremony on the final day to distribute certificates and celebrate participants achievements.