



**Petroleum, Oil & Gas**



**SCANDINAVIAN ACADEMY**  
Training and Development

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# Course: Drilling Fluids & Cementing

Code	City	hotel	Start	End	price	Hours
757	Hamburg (Germany)	Hotel Meeting Room	2024-08-05	2024-08-09	5950 €	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' stuff & 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 employs modern methods in training and skills development, enhancing the efficiency of human resource development. We follow these practices:**

- **Theoretical Lectures:**
  - We deliver knowledge through advanced presentations such as PowerPoint and visual materials, including videos and short films.
- **Scientific Assessment:**
  - We evaluate trainees skills before and after the course to ensure their progress.
- **Brainstorming and Interaction:**
  - We encourage active participation through brainstorming sessions and applying concepts through role play.
- **Practical Cases:**
  - We provide practical cases that align with the scientific content and the participants specific needs.
- **Examinations:**
  - Tests are conducted at the end of the program to assess knowledge retention.
- **Educational Materials:**
  - We provide both printed and digital scientific and practical materials to participants.
- **Attendance and Final Result Reports:**
  - We prepare detailed attendance reports for participants and offer a comprehensive program evaluation.
- **Professionals and Experts:**
  - The programs scientific content is prepared by the best professors and trainers in various fields.
- **Professional Completion Certificate:**
  - Participants receive a professional completion certificate issued by the Scandinavian Academy for Training and Development in the Kingdom of Sweden, with the option for international authentication.
- **Program Timings:**
  - Training programs are held from 10:00 AM to 2:00 PM and include buffet sessions for light meals during lectures.