

COURSE AIMS

To explain the functions, properties and design of drilling and completion fluids. The focus is practical familiarization with fluid design, applications, handling and treatment. For Drilling Engineering students, the course provides sufficient detail for the supervision and quality control of fluids specialists at the rig site.

Who Should Attend

Drillers, Drilling Engineers, Petroleum Engineers, Well site and Operations Geologists, Senior Mud logging Personnel

COURSE CONTENT**Introduction to Drilling Fluids**

- Functions of drilling fluid
- Properties of drilling fluids
- Basic mud chemicals

General mud classification

- Pre-hydrated Bentonite Premix
- Spud mud
- Gypsum Lignosulphonate
- Salt muds
- Oil based muds

Fluid Applications

- Drilling
 - Onshore
 - Offshore
 - HPHT
- Completion

Design Principles

- Hole Cleaning
- Formation Damage
- Inhibition
- Lost circulation
- Differential sticking

Mud contaminants

- Salt
- Calcium
- Carbonate
- Clay
- Trouble Shooting

Work over/ Completion fluids

- Introduction
- Formation damage Brines
- Brines

API mud testing procedures

- Density
- Viscosity.
- Gel, Sfrengd,
- Mud rake & Water loss
- PH
- Chlorides rides
- Send Content

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