

COURSE SYLLABUS

AMC USA Drilling Fluids Course



an *imdex* limited company

Introductory Course: 2 days (12 hours of Instruction)

Will cover the Basics of drilling fluids, Functions, Generic drilling fluids systems, Formulations, Various mud systems, Properties and measurements, Contaminations.

ADVANCED MUD TECHNOLOGY : 4 hours of Instruction

Emerging trends in drilling fluid technology, Clay chemistry, Hydraulics, Down hole problems, Various inhibitive mud systems, Fluids for deep water and high angle wells, Environmental impact.

Topics to be discussed:

- Why Use a Drilling Fluid
- Drilling Fluid Types
- Primary Functions of a Drilling Fluid
- Secondary Functions of a Drilling Fluid
- Properties of a Drilling Fluid
 - Viscosity
 - Mud Weight
 - pH
 - Solids & Sand
 - Fluid Loss
 - Rheology
 - PV
 - YP
 - Gel Strength
- Polymers
- Water Sensitive Clay – Encapsulation
- Water Sensitive Clay – Inhibition
- Planning a Fluid System
- Mud Systems – Hard Rock
- Mud Systems – Sedimentary
- Mud Systems – Broken & Fractured
- Casing Packs
- Lost Circulation
- Cementing
- Volumetric Calculations
- Types of Flow
- Pit Design
- Mixing Equipment

The courses are conducted with practical lab training for mud preparation and mud check

The course is a competency-based program structured around a hands-on classroom/laboratory experience which allows the students to apply what they are learning in the classroom during their laboratory sessions.

Students who successfully complete the class will demonstrate their ability to test, analyze, and treat water based drilling fluids. Upon successful completion of the course, the student will received an AMC USA Basic Drilling Fluids Course Certificate of Completion.