



Drill String Design and Optimization - DSD

COURSE

About the Course

We have been presenting Drill String Design workshops for over 12 years for all types of operations around the world. We are constantly updating our materials to reflect the latest technology applications for both near-vertical and high-angle well designs while maintaining a thorough grounding in the fundamentals. Workshop content is often customized to address customer-specific operational situations and software applications. Course tuition includes a copy of DS-1 Drill String Design Standard 4th Ed. Vol.2.

"Well organized." - Drilling Engineer, South Korea

"The instructor explained material very well and thoroughly." - Technical Advisor Associate, United States

Target Audience

Operator, drilling contractor, and service company engineers; drilling supervisors and superintendents. This is an intensive technical workshop.

You Will Learn

Participants will learn how to:

- Place the drill string design process in context with other planning and operational considerations
- Refresh underlying physics of drill string failures and mechanical properties of drill string materials
- Clarify performance properties of drill string components and how to apply design margins
- Design cost-effective BHAs and match them to your bit
- Gain specific application experience analyzing common load cases for both near-vertical and high-angle situations: tension loads, torque loads, combined tension-torque loads, fatigue loads, buckling loads
- Understand the basis for industry software design tools, including torque and drag, casing wear, and hydraulics
- Identify drilling tools and operational practices to reduce both torque and drag and casing wear
- Diagnose and mitigate vibration to reduce drill string damage and failure
- Optimize your drill string inspection program using the latest industry standards

Course Content

- Drill string and BHA failure prevention

- Low-angle design applications
- High-angle design applications
- Torque, drag, and casing wear mitigation
- Vibration monitoring and avoidance
- Drill string handling and inspection

Product Details

Categories: [Upstream](#)

Disciplines: [Well Construction/Drilling](#)

Levels: [Intermediate](#)

Product Type: [Course](#)

Formats Available: [In-Classroom](#)

Instructors: [PetroSkills Specialist](#)