

**Course Overview:**

This course gives a technical overview of the science and art of drilling operations, completion practices and post-completion wellbore enhancement or remedial workover techniques (well intervention). It develops an understanding of the what, why, and how of each of these areas of engineering practice. Reservoir Engineers will learn what can be done within open-hole and cased wells as they execute reservoir management. Drilling and completion personnel will learn how the producing reservoir can be damaged or stimulated by what they do. The participants learn to visualize what is happening "downhole", discover what can be accomplished and gain an appreciation for wellbore risks and the possibility of damage to the formation; and how drilling and completion practices can alter reservoir interpretation and performance.

**Course Objective:**

- How drilling, completing and reworking a well affects its ability to produce
- What can be done within open-hole and cased wells, as a part of reservoir management
- How drilling practices can damage or stimulate producing wells

**Course Outline:**

- OVERALL DRILLING PRACTICES
- LANGUAGE OF DRILLING
- RESERVOIR ROCK AND FLUID PROPERTIES
- RIGS & RIG EQUIPMENT
- DRILLING STRING COMPONENTS & DESIGN
- DRILLING FLUIDS &
- HYDRAULICS
- RIG OPERATION
- WELL CONTROL
- HOLE PROBLEMS & STUCK PIPE
- DRILLING RISKS
- CORES AND CORING
- CASING DESIGN & INSTALLATION
- PRIMARY CEMENTING
- DIRECTIONAL, HORIZONTAL, MULTILATERAL & UNDER-BALANCED DRILLING
- WELLHEAD & TREES
- ZONAL ISOLATION
- TUBING, PACKERS & COMPLETION EQUIPMENT
- SAFETY & FLOW CONTROL DEVICES
- OPEN HOLE COMPLETIONS
- BASIC COMPLETION TYPES
- PERFORATING
- OPEN & CASED HOLE LOGGING
- FORMATION DAMAGE & TREATMENT
- COMPLETION FLUIDS
- MULTIPLE COMPLETIONS
- STIMULATION APPLICATION: SURFACTANTS, SOLVENTS, ACIDIZING, FRACTURING & DEEP PERFORATING

**Training Language:**

EN / AR

**Training Methodology:**

- Presentation & Slides
- Audio Visual Aids
- Interactive Discussion
- Participatory Exercise
- Action Learning
- Class Activities
- Case Studies
- Workshops
- Simulation

- FORMATION & SAND CONTROL: SCREENS, CHEMICAL
- CONSOLIDATION, GRAVEL PACKING, FRAC-PACK, NEW & NOVEL TECHNIQUES
- SCALE & CORROSION
- PARAFFIN & ASPHALTENES
- RECOMPLETIONS
- SIDETRACKING
- DEEPENING
- COILED TUBING

**Who Should Attend:**

- Technical, field, service, support and supervisory personnel desiring to gain an introductory overview of these topics and how they interrelate.