

Advanced Coiled Tubing Job Design and Operations Training Course

21 – 25 February 2027
Johannesburg

AGILE LEADERS
Training Center

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Ref: 1936_243769 **Date:** 21 – 25 February 2027 **Location:** Johannesburg **Fees:** 6000 Euro

Overview

Advanced Coiled Tubing Job Design and Operations Training Course is a one-week advanced course for well-intervention, completion, production, service, operations, and safety functions who leave with a Coiled Tubing Job Design and Execution File. Participants connect well objectives, string limits, fatigue, reach, hydraulics, pressure control, bottomhole assemblies, barriers, real-time monitoring, and contingencies. The course applies engineering calculations and operational evidence to cleanout, stimulation, nitrogen lifting, logging, milling, fishing, and selected drilling work. Agile Leaders Training Center presents coiled tubing job design and operations practice.

Who Should Attend

- Well-intervention functions responsible for job selection, design, and execution
- Completion functions responsible for well access and downhole objectives
- Production functions responsible for restoration and stimulation decisions
- Service functions responsible for equipment, crews, and field delivery
- Operations functions responsible for barriers, monitoring, and contingencies
- Safety functions responsible for pressure control and abnormal situations

The course assumes participants interpret well schematics, completion data, pressure information, and intervention programs, and it leaves out introductory well terminology, proprietary software configuration, and certification-exam preparation.

Departments and Industries

The course supports departments and industries that plan or execute coiled tubing interventions.

- Oil and gas production
- Geothermal and subsurface energy operations
- Well intervention and completion services
- Production engineering and technical services
- Operations, maintenance, and process safety

Learning Objectives

By the end of this course, participants will be able to:

- Evaluate coiled tubing application suitability
- Analyze string limits, fatigue, forces, and reach
- Apply hydraulics and solids-transport calculations
- Select pressure-control equipment and bottomhole assemblies
- Prioritize barriers, monitoring, and contingencies
- Build a controlled job design and execution file

Course Agenda

Day 1: Define the Coiled Tubing Job

- Intervention Objective and Application Selection Matrix
- Well Schematic and Completion-Constraint Map
- Coiled Tubing System and Equipment Layout
- Job Data Quality and Assumption Register
- Operational Boundary and Acceptance-Criteria Sheet

Day 2: Establish String Limits and Reach

- String Specification and Tapered-Design Comparison
- Fatigue Cycle and Pressure-Derating Method
- Axial Force, Friction, and Weight Indicator Model
- Sinusoidal and Helical Buckling Analysis
- Lock-Up Depth and Extended-Reach Decision Map

Day 3: Design Hydraulics and Equipment

- Coiled Tubing Friction-Pressure Calculation
- Annular Velocity and Solids-Transport Check
- Nitrogen and Foam Hydraulics Worksheet
- Injector, Reel, and Power-Pack Capacity Review
- Pressure-Control Stack and Barrier Verification Checklist

Day 4: Plan Applications and Contingencies

- Cleanout, Circulation, and Scale-Removal Job Template
- Stimulation and Nitrogen-Lift Treatment Placement Plan
- Logging, Milling, Fishing, and Cementing BHA Matrix
- Real-Time Pressure, Temperature, Flow, and Depth Monitor
- Stuck Pipe, Leak, Failure, and Well-Control Contingency Tree

Day 5: Practice Job Design and Execution

- Suggested Exercise: Select a Coiled Tubing Application
- Suggested Exercise: Calculate Fatigue, Forces, and Reach
- Suggested Exercise: Balance Hydraulics and Pressure Limits
- Suggested Exercise: Verify Barriers and Contingency Responses
- Capstone Exercise: Complete the Coiled Tubing Job Design and Execution File

Practical Exercises

The course uses suggested activities to turn well objectives and field constraints into controlled coiled tubing decisions.

- Suggested activity: screen intervention options and define measurable acceptance criteria.
- Suggested activity: calculate string fatigue, force, buckling, reach, and circulating pressures.
- Suggested activity: select surface equipment, pressure-control components, and bottomhole assemblies.
- Suggested activity: document barriers, monitoring indicators, decision points, and contingency actions.

FAQs

Who suits coiled tubing job design and operations training, and what does it assume?

Coiled tubing job design and operations training suits intervention, completion, production, service, operations, and safety functions. It assumes practical use of well schematics, completion data, pressure information, and intervention programs.

How does coiled tubing job design differ from general well-intervention training?

Coiled tubing job design concentrates on continuous-tubing mechanics, fatigue, reach, hydraulics, pressure-control equipment, bottomhole assemblies, and application execution. General well-intervention training also addresses wireline, snubbing, workover, and other access methods.

What determines coiled tubing reach in a deviated well?

Reach is determined by string weight, well geometry, friction, contact forces, buckling, internal and external pressure, toolstring load, fluid effects, and the onset of lock-up.

How is coiled tubing fatigue controlled?

Fatigue is controlled through string history, cycle counting, pressure and ovality effects, bend-radius exposure, defect monitoring, operating limits, inspection, and retirement criteria.

What should a coiled tubing contingency plan address?

A contingency plan should address pressure-control failure, stuck pipe, circulation loss, tubing leak or parting, tool failure, well influx, communications, decision authority, safe shutdown, recovery, and escalation.

Conclusion

Participants take back a Coiled Tubing Job Design and Execution File linking objectives, string limits, hydraulics, equipment, barriers, applications, monitoring, and contingencies. It changes disconnected calculations and procedures into one controlled intervention plan. The file supports pre-job review, field execution, decision-making, verification, and post-job learning.