Training Course on Well Completion and Stimulation Design

Professional Development Training Course Outline

Category	Oil and Gas	**Duration**	10 Days
Base Fee	$3,000 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

In the ever-evolving landscape of oil and gas exploration, well completion and stimulation design are critical disciplines for optimizing production and maximizing reservoir output. Training Course on Well Completion & Stimulation Design is designed to empower engineers and technical professionals with a practical, in-depth understanding of advanced completion systems, hydraulic fracturing, acidizing techniques, sand control, and stimulation strategies. Through this course, participants will gain a robust foundation in the concepts, technologies, and methods necessary to design cost-effective and efficient completions that ensure long-term well integrity and reservoir productivity.

As unconventional resources and tight formations become more common, the need for highly specialized skills in completion optimization and reservoir stimulation becomes vital. This course uses real-world case studies, simulation tools, and step-by-step design workflows to prepare professionals for immediate application in field operations. Whether you're seeking to reduce non-productive time (NPT), improve production rates, or implement green stimulation technologies, this program delivers critical, job-ready expertise.

Programme Curriculum

Training Course on Well Completion & Stimulation Design

Introduction

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Course Objectives

1. Understand modern well completion technologies and their applications in various reservoir types
2. Learn formation evaluation techniques for stimulation design
3. Design cost-effective completion strategies for conventional and unconventional wells
4. Evaluate hydraulic fracturing models and stimulation techniques
5. Apply acidizing treatments for carbonate and sandstone formations
6. Understand sand control methods including gravel packing and screen selection
7. Analyze formation damage and select the appropriate remediation method
8. Assess completion fluid selection and compatibility
9. Utilize completion software tools and modeling applications
10. Apply zonation and perforation strategies to maximize reservoir access
11. Learn green completion and environmentally sustainable stimulation techniques
12. Use real-time data for stimulation monitoring and optimization
13. Interpret post-stimulation performance and refine designs accordingly

Target Audiences

1. Petroleum Engineers
2. Production Engineers
3. Drilling Engineers
4. Completion Engineers
5. Field Supervisors
6. Reservoir Engineers
7. Oil & Gas Technical Managers
8. Energy Industry Consultants

Course Duration: 10 days

Course Modules

Module 1: Introduction to Well Completion

- Types of well completions
- Well lifecycle and completion role
- Overview of downhole completion equipment
- Safety considerations
- Completion economics
- **Case Study:** Completion design for a horizontal shale well

Module 2: Reservoir Characterization for Completion

- Rock and fluid properties
- Porosity and permeability analysis
- Well logging and core analysis
- Pressure and temperature profiling
- Selection of completion type based on reservoir
- **Case Study:** Designing completion based on carbonate reservoir data

Module 3: Sand Control Techniques

- Causes of sand production
- Gravel packing design
- Frac pack vs. standalone screens
- Screen selection and placement
- Sand control economics
- **Case Study:** Offshore sand control solution implementation

Module 4: Hydraulic Fracturing Design

- Basics of fracture mechanics
- Proppant selection and fluid systems
- Fracture geometry modeling
- Frac job execution and monitoring
- Fracture cleanup techniques
- **Case Study:** Multistage frac job in a tight oil reservoir

Module 5: Acid Stimulation Techniques

- Matrix vs. fracture acidizing
- Acid systems and additives
- Treatment design and placement
- Compatibility with reservoir rock
- Health, safety, and environmental aspects
- **Case Study:** Acidizing carbonate reservoir for productivity boost

Module 6: Perforation Strategy

- Perforation methods
- Gun systems and phasing
- Depth control and damage minimization
- Overbalanced vs. underbalanced perforation
- Perforation in deviated wells
- **Case Study:** Optimizing perforation for a deepwater gas well

Module 7: Completion Fluids

- Types of fluids used in completions
- Fluid loss and bridging agents
- Compatibility testing with formation
- Brine selection and use
- Fluid displacement techniques
- **Case Study:** Brine selection impact on sandstone formation

Module 8: Formation Damage Control

- Causes of formation damage
- Diagnosis and remediation
- Use of preflushes and diverters
- Mechanical vs. chemical treatments
- Prevention during well intervention
- **Case Study:** Restoring productivity in a damaged well

Module 9: Stimulation Software Tools

- Overview of leading software

- Input parameters for modeling
- Running fracture simulations
- Economic sensitivity analysis
- Integration with field data
- **Case Study:** Stimulation design using FracPro/GOHFER

Module 10: Multistage Completions

- Zonal isolation techniques
- Plug-and-perf method
- Sliding sleeve systems
- Open hole vs. cased hole
- Zonal productivity tracking
- **Case Study:** Horizontal well with 30-stage completion

Module 11: Real-Time Stimulation Monitoring

- Sensors and data collection
- Surface and downhole diagnostics
- Pressure monitoring
- Fracture mapping tools
- Adjustments during job execution
- **Case Study:** On-the-fly design changes in a tight gas well

Module 12: Green & Sustainable Completions

- Reduced-emission stimulation
- Waterless fracturing options
- Low-toxicity fluid systems
- Environmental risk management
- Regulatory compliance
- **Case Study:** Green stimulation in environmentally sensitive area

Module 13: Completion Optimization Techniques

- Identifying underperforming completions
- Decline curve analysis
- Recompletion techniques
- Artificial lift integration
- Post-completion intervention
- **Case Study:** Optimization of mature well in sandstone reservoir

Module 14: Horizontal & Multilateral Wells

- Completion strategies for horizontals
- Open hole vs. cased hole completions
- Zonal isolation and selective stimulation
- Fracture placement in laterals
- Managing water and gas breakthrough
- **Case Study:** Stimulation design for multilateral onshore well

Module 15: Post-Stimulation Analysis

- Evaluation of frac job success
- Production testing techniques
- Decline trend analysis

- Surveillance tools and strategies
- Workflow improvements for next jobs
- **Case Study:** Performance analysis post hydraulic fracturing

Training Methodology

- Interactive instructor-led sessions
- Real-world case studies and simulations
- Hands-on exercises with stimulation software
- Group workshops and peer reviews
- Knowledge checks and quizzes after each module
- Final assessment and certificate of completion

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	04 Dec 2026	Online	$2,000
23 Nov 2026	04 Dec 2026	Physical	$3,000
23 Nov 2026	04 Dec 2026	Physical	$6,000

Start Date	End Date	Location	Price
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$9,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$12,000

Ready to enroll or request a customized program? Book online or contact us:

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