TECHNICAL
EDUCATION
ACADEMY

School of Engineering

COURSE PROGRAMME

000508

Fundamentals of Well Testing Operations

Unlock the future of oil and gas with our Five-Day Fundamentals of Well Testing Operations Training Programme!



Learn from the Best in the Business!

Course overview

Intermediate level

Why take this course

Unlock the future of oil and gas with our Five-Day Fundamentals of Well Testing Operations Training Programme! Designed to address the multi-faceted challenges and technological nuances of well testing, this programme offers a robust curriculum spanning from basic principles to cutting-edge technologies. Elevate your understanding of well testing with modules focused on everything from Drill Stem Testing (DST) and Tubing Conveyed Perforating (TCP) to state-of-the-art Multiphase Flow Meter technology (Vx).

Day 1 sets the stage with an introductory module that dives into the why, what, and how of well testing, ensuring a strong foundational knowledge. Day 2 elevates your expertise with an in-depth look into DST and TCP, complete with a hands-on workshop. As we transition into Day 3, we delve into Reservoir Sampling and Analysis (RSA & WSC), combined with an exploration of Muzic Wireless Telemetry, offering a blend of theoretical knowledge and practical skills.

Day 4 is a game-changer, focusing on the complex yet fascinating world of subsea operations. We also demystify the components of Surface Well Testing, leaving no stone unturned. On the fifth and final day, we address essential safety protocols and operational concerns before shifting our focus to data acquisition technologies and concluding with a look into the future of well testing technologies.

Each day is punctuated with interactive activities, case studies, and quizzes, enabling an engaging and enriching learning experience. Upon completion, you will receive a certificate to acknowledge your new competencies.

In an industry that's rapidly evolving, staying ahead of the curve is crucial. Our Five-Day Fundamentals of Well Testing Operations Training Programme is your ticket to becoming a well-rounded, forward-thinking professional in the oil and gas sector. Invest in your future—register today!

Who it is for and how it helps

This comprehensive training programme is designed to cater to a diverse audience within the oil and gas sector, making it an ideal learning opportunity for:

- Entry-Level Engineers and Technicians: Those who are new to the field will gain a solid foundation in well testing operations, setting the stage for future specialization and growth.
- Experienced Engineers: Even those with years in the industry can benefit from updates on the latest technologies and methods, ensuring they stay ahead of industry trends.
- Project Managers and Team Leaders: Understanding the technical intricacies of well testing operations can improve project planning, execution, and risk management.
- Geoscientists and Reservoir Engineers: The course provides essential knowledge about reservoir properties, which is crucial for modeling and analysis.

Course overview — continued

- Quality and Safety Personnel: Those responsible for ensuring safety protocols and quality standards will gain valuable insights into both operational and safety aspects of well testing.
- Operational Staff: Personnel involved in the daily operations of drilling, sampling, and testing can greatly benefit from understanding the broader context and objectives of their work.
- Research and Development Professionals: Those focused on the future of well testing technologies will find the last module particularly beneficial.
- Regulatory and Compliance Officers: Understanding the technical aspects can help in setting guidelines and ensuring industry standards are met.
- Consultants and Contractors: Those who offer specialized services in the oil and gas sector can improve their expertise, making them more competitive in the market.
- Students and Academics: Individuals studying petroleum engineering, geology, or related fields will find this course an excellent supplement to academic learning.

In summary, the programme offers something for everyone involved in well testing operations, from the technical to the managerial aspects. Whether you are just starting your career or looking to update your existing knowledge, this Five-Day Fundamentals of Well Testing Operations Training Programme is the perfect stepping stone to the next level of your professional journey.

What you will learn

- Understand the basics of well testing, including its objectives, the types of tests conducted, and the data that can be acquired
- Acquire hands-on experience and understanding of Tubing Conveyed Perforating (TCP), including perforating principles and gun system selection
- Grasp key concepts, objectives, and tools related to Drill Stem Testing (DST), as well as the principles of its operations and job design
- Learn the various techniques of Open Hole & Cased Hole Sampling, sample transfer methods, and the types of samplers and carriers used
- Understand the principles behind Muzic Wireless Telemetry and its applications in well testing operations
- Gain insights into the tools and methodologies used in subsea well testing, enhancing their skill set for offshore operations
- Acquire knowledge about well test parameters, surface well testing equipment, and operational principles
- Learn the critical safety protocols and operational concerns that need to be considered during well testing, contributing to safer work environments
- Understand the essentials of Testing Data Acquisition (TDA), including familiarity with SWAN, Signature Gauges, Turbine meters, and Coriolis meters
- Learn about Vx technology, its measurement principles, operations, and performance metrics

Course overview — continued

- Gain an introduction to emerging technologies in well testing, such as Vx, AWS, SWAN, IAT, EverGreen, Concert, and MUZIC HT

Curriculum

Modules 01–06

01 Module 1: Introduction to Well Testing Operations

- What is Well Testing?
- Objectives of Well Testing
- Types of Tests
- Data Acquired from Well Testing

02 Module 2: Tubing Conveyed Perforating (TCP)

- Overview of TCP
- Perforating Principle
- Gun System Description
- Gun System Selection

03 Module 3: Drill Stem Testing (DST)

- Introduction to DST Concepts
- Objectives and Tools
- Principles of Operations
- Types of DSTs
- Job Design Principles

04 Module 4: Reservoir Sampling and Analysis (RSA & WSC)

- Open Hole & Cased Hole Sampling
- Methods of Sampling
- Sample Transfer
- Types of Samplers and Carriers

05 Module 5: Introduction to Muzic Wireless Telemetry

- Principles of Muzic Wireless Telemetry

06 Module 6: Subsea Operations

- Explanation of Subsea Operations

Curriculum

Modules 06–11 · Module 06 — continued

- Subsea Tools Overview

07 Module 7: Surface Well Testing Basics

- Introduction to Surface Well Testing
- Well Test Parameters
- Equipment Introduction

08 Module 8: Safety and Operational Concerns in Surface Well Testing

- Introduction to Safety Concerns
- Operations and Job Design

09 Module 9: Testing Data Acquisition (TDA)

- Introduction to TDA
- SWAN
- Signature Gauges
- Turbine meters
- Coriolis meters

10 Module 10: Multiphase Flow Meter Technology (Vx)

- Vx Technology Overview
- Tool Description & Measurement Principles
- Operations and Performance

11 Module 11: Future Technologies in Well Testing

- Vx
- AWS
- SWAN
- IAT
- EverGreen
- Concert
- MUZIC HT

Participation and contacts

Joining the programme

Contact the Academy and quote course code 000508 to confirm dates, delivery format, prices and enrolment terms.

Training for your team

Tell us your business goals, the roles and number of participants, and your preferred dates and location. This will help us discuss the right training option.

Preparing for the programme

The published programme does not specify any prerequisites. Contact us before enrolling to confirm how to prepare.

Discuss your training needs

mail@tecedu.org
www.tecedu.academy

Learn from the Best in the Business!