TECHNICAL
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ACADEMY

School of Engineering

COURSE PROGRAMME

000714

Advanced Well Testing Operations

The training program on advanced well testing methods offers a unique combination of theoretical knowledge and practical skills, specially designed for professionals in the oil and gas industry.



Learn from the Best in the Business!

Course overview

Duration: 5 days / 40 hours · Advanced level

Why take this course

The training program on advanced well testing methods offers a unique combination of theoretical knowledge and practical skills, specially designed for professionals in the oil and gas industry. This comprehensive course is meticulously planned to cover a broad spectrum of topics—from health, safety, and environmental protocols (HSE) to the nuances of perforation using tubing-conveyed perforating systems (TCP) and testing with drill stem test assemblies (DST). We immerse participants in the world of fluid analysis, interpretation of well test results, and data collection, with a major emphasis on designing operations in complex conditions such as deepwater and high-temperature operations, and wells with high-pressure, high-temperature downhole conditions.

What sets this program apart is its modular structure, which allows participants to acquire specific skills relevant to their roles while simultaneously developing a comprehensive understanding of advanced well testing methods. This course is aimed at experienced well test engineers, reservoir engineers, drilling engineers, field supervisors, and even quality control specialists. The course is designed to enhance your skills in all aspects related to the well testing process.

This course is more than just a training program; it is an investment in your professional growth. Participants will leave the course with the ability to integrate knowledge across different areas and adhere to industry standards, ensuring safety and quality in service delivery. Don't miss the opportunity to take your career to a new level and more effectively contribute to the success of your organization

Who it is for and how it helps

This training program on advanced well testing methods is designed for the following categories of professionals: experienced test engineers, reservoir geologists, drilling engineers, production engineers, field supervisors and managers, geologists and physicists of reservoirs, technical assistants and analysts, health, safety, and environmental (HSE) specialists, quality control and assurance specialists, and service company representatives.

What you will learn

- Plan and justify a complete well-test programme—including safety criteria for deep-water and high-temperature wells, equipment volumes, logistics, and critical-path scheduling.
- Select and evaluate reservoir-fluid and rock samples, oversee PVT test programmes, and validate laboratory results for use in inflow performance, nodal, and flow-assurance studies.
- Design Tubing-Conveyed Perforating (TCP) and Drill-Stem Test (DST) strings, calculate charge penetration and DST tool-string configuration, and prepare detailed operating procedures for safe execution.
- Configure, inspect, and commission a surface (deck) well-test package, develop P&IDs, perform pressure testing and tuning, and implement HSE and HAZOP controls throughout live operations.

Course overview — continued

- Programme, deploy, and retrieve downhole and surface sensors, collect high-quality pressure-rate data, and apply industry-standard QA/QC workflows to produce a validated field data package.
- Design well tests specifically for pressure-transient objectives, selecting flow periods, shut-in times, and gauge locations to capture diagnostic flow regimes.
- Perform fundamental PTA interpretation in KAPPA Saphir, diagnose wellbore storage and skin, identify boundaries, and match derivative plots to appropriate analytical or numerical models.
- Apply advanced PTA techniques—including fracture diagnostics, multilayer/horizontal-well models, and integration of PTA results with full-field reservoir simulation for history-matching.
- Translate PTA findings into actionable reservoir-management recommendations, such as production-rate optimisation, well-interference mitigation, and drainage-area definition.
- Communicate technical results effectively, preparing concise well-test interpretation reports and presenting case-study conclusions to multidisciplinary teams.

Pre-course requirements

- Educational Background: A fundamental understanding of petroleum engineering or a related field, often at least a bachelor's degree in engineering, geosciences, or a similar discipline.
- Basic Knowledge of Petroleum Industry: Familiarity with the oil and gas industry, including an understanding of basic petroleum geology, reservoir engineering, and drilling operations.
- Prior Experience in Oilfield Operations: Some practical experience in oilfield operations, particularly in areas related to well testing, drilling, or production, can be very beneficial.
- Understanding of Well Testing Principles: A basic grasp of well testing concepts, including an understanding of pressure transient analysis, reservoir performance, and the basics of fluid dynamics within a wellbore.
- Technical Skills: Proficiency in relevant software tools and technologies used in well testing and data analysis. This could include simulation software, well testing software, and general data analysis tools.

Programme instructor

CR

Chibane Redouane

A highly accomplished Head of Reservoir Engineering Department and Petroleum Engineering Instructor with more than 15 years of international experience in reservoir simulation, dynamic modeling, petroleum engineering, production optimization, and flow assurance. Brings a strong technical foundation and multidisciplinary expertise across reservoir engineering, production engineering, process engineering, and petroleum fluid analysis, with a demonstrated record of delivering value in complex oil and gas projects.

Proficient in a wide range of petroleum industry software, including Petrel RE, Eclipse, Nexus, Pipesim, MBAL, GAP, PROSPER, PVTP, OLGA, Surfer, Ecrin, Qrod, ScaleChem, and HYSYS. Applies a hands-on approach to field development planning, integrated asset modeling, digital oil-field workflows, and well intervention planning, contributing to increased recovery, reduced OPEX, and improved operational efficiency.

Experience includes collaboration with major IOCs and service providers such as Schlumberger, Halliburton, ENI, Anadarko, and Oxy, fostering strong capability in multicultural and cross-functional environments. Demonstrated leadership in full-field surveillance, PVT and laboratory analysis, artificial lift systems (ESP, GL, SRP), and flow-assurance risk mitigation in both onshore and remote operations.

A certified instructor with strong pedagogical and technical competence, delivering training on key upstream workflows including EOS modeling, reservoir simulation, integrated production modeling, surface-network optimization, well diagnostics, and lift optimization. Combines analytical depth with clear communication to effectively connect theoretical concepts with practical industry applications.

Participant ratings

Programme evaluation based on participant feedback

Overall programme rating — 3.7 / 5

Clarity of learning objectives	**3.5 / 5**
Confidence in applying knowledge and skills	**3.6 / 5**
Achievement of learning objectives	**3.7 / 5**
Relevance of content to job tasks	**3.2 / 5**
Suitability of difficulty for the level of preparation	**3.5 / 5**
Increase in knowledge	**3.6 / 5**
Skills development	**3.7 / 5**
Willingness to recommend the programme to colleagues	**3.5 / 5**

17 responses

Joining the programme

Contact the Academy and quote course code 000714 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

Read the pre-course requirements in this programme before enrolling.

Discuss your training needs

mail@tecedu.org
www.tecedu.academy

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