MERCURY

Oil & Gas Reservoir System and Maintenance

14 – 18 December 2026
London (UK)



Dubai - UAE: +971 4 450 5697
Istanbul - Türkiye: +90 539 599 1206
Amman - Jordan: +962 79 712 3347

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Ref: 15557_314793 **Date:** 14 – 18 December 2026 **Location:** London (UK) **Fees:** 5900 Euro

Introduction:

The oil and gas reservoir system and maintenance course delved into the intricacies of maintaining and optimizing the reservoir systems that form the backbone of the oil and gas industry. Participants will explore the critical components and processes in ensuring efficient operation and longevity of these vital assets.

This oil and gas reservoir system and maintenance program will give participants valuable insights into the latest technologies, methodologies, and best practices in maintaining oil and gas reservoir systems. From reservoir monitoring and data analysis to wellbore integrity and production optimization, we cover many topics essential for professionals in the field.

Whether participants are seasoned industry veterans looking to stay abreast of the latest advancements or newcomers seeking to build a solid foundation in reservoir maintenance, this course offers something for everyone. Our expert instructors, industry-leading curriculum, and interactive learning modules provide a dynamic and engaging learning experience tailored to meet the demands of today's oil and gas sector.

Participants in this oil and gas reservoir system and maintenance training will embark on this educational journey to enhance their knowledge and proficiency in maintaining oil and gas reservoir systems. They will equip ourselves with the knowledge and skills needed to excel in this dynamic and ever-evolving industry.

Targeted Groups:

- Petroleum Engineers.
- Geoscientists.
- Maintenance Crews.
- Production Supervisors.
- Asset Planners.
- Data Analysts.
- Regulatory Compliance Officers.
- Field Technicians.
- Drilling Engineers.
- Reservoir Geologists.
- Environmental Health and Safety Personnel.
- Operations Managers.
- Well Integrity Specialists.
- Reservoir Simulation Engineers.
- Quality Assurance Inspectors.

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Course Objectives:

At the end of this oil and gas reservoir system and maintenance course, the participants will be able to:

- Understand the fundamentals of oil and gas reservoir systems, including their components, processes, and critical functions.
- Learn advanced techniques for reservoir monitoring, data analysis, and interpretation to optimize production performance and maximize resource recovery.
- Gain insights into preventive maintenance strategies to enhance reservoir equipment and facilities' reliability, integrity, and lifespan.
- Explore best practices for diagnosing and troubleshooting common issues and challenges in oil and gas reservoir maintenance.
- Develop proficiency in implementing cost-effective maintenance plans and strategies to minimize downtime and operational disruptions.
- Acquire knowledge of regulatory requirements and industry standards governing oil and gas reservoir maintenance practices to ensure compliance and mitigate risks.
- Enhance skills in utilizing cutting-edge technologies and tools for reservoir system monitoring, predictive maintenance, and performance optimization.
- Learn how to assess and mitigate environmental and safety risks associated with oil and gas reservoir maintenance operations.
- Gain practical experience through case studies, simulations, and hands-on exercises to reinforce learning and problem-solving abilities.
- Collaborate with industry peers and experts to exchange insights, experiences, and best practices in oil and gas reservoir system maintenance.

Targeted Competencies:

By the end of this oil and gas reservoir system and maintenance training, the participant's competencies will be able to:

- Analysis and interpretation of reservoir performance data.
- Preventive maintenance techniques for equipment reliability.
- Troubleshoot common maintenance challenges.
- Utilization of advanced monitoring technologies.
- Compliance with regulatory standards.
- Cost-effective maintenance planning.
- Environmental and safety risk assessment.
- Cross-functional collaboration.
- Data-driven decision-making.
- Effective communication with stakeholders.

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Course Content:

Unit 1: Fundamentals of Reservoir Systems:

- Overview of oil and gas reservoir components and characteristics.
- Reservoir formation processes and geological considerations.
- Reservoir fluid properties and behavior.
- Reservoir architecture and heterogeneity.
- Primary, secondary, and tertiary recovery mechanisms.

Unit 2: Reservoir Monitoring and Data Analysis:

- Techniques for real-time reservoir monitoring and surveillance.
- Interpretation of well logs, pressure data, and production performance metrics.
- Introduction to reservoir simulation software and modeling techniques.
- Analysis of production decline curves and reservoir flow behavior.
- Case studies on using data analytics for reservoir optimization.

Unit 3: Preventive Maintenance Strategies:

- Preventive maintenance principles and methodologies.
- Development of maintenance schedules and inspection protocols.
- Identify and prioritize critical equipment for maintenance.
- Predictive maintenance techniques are used, such as condition monitoring and predictive analytics.
- Discussion on reliability-centered maintenance RCM approaches.

Unit 4: Troubleshooting and Diagnostics:

- Common issues and challenges in oil and gas reservoir maintenance.
- Techniques for diagnosing equipment failures and performance degradation.
- Root cause analysis methodologies for identifying underlying maintenance issues.
- Case studies on effective troubleshooting strategies and solutions.
- Hands-on exercises and simulations to practice diagnostic skills.

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Unit 5: Regulatory Compliance and Risk Management:

- Regulatory requirements governing oil and gas reservoir maintenance.
- Compliance with environmental, health, and safety regulations.
- Risk assessment and mitigation strategies for reservoir maintenance operations.
- Integration of risk management principles into maintenance planning and execution.
- Role of quality assurance and audit processes in ensuring compliance and risk mitigation.