Digital Data Management and Analytics for Oil & Gas Industry

27 – 31 December 2026
Nairobi

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Digital Data Management and Analytics for Oil & Gas Industry

Ref: 103600570_106325 **Date:** 27 – 31 December 2026 **Location:** Nairobi **Fees:** 4500 Euro

Course Overview:

In the rapidly evolving oil and gas industry, data has become the new oil. The "Analytical Production Data Management For Oil and Gas" course is designed to harness the full potential of data produced and stored by the industry. Participants will learn how to derive value from data, emphasizing the importance of intention, planning, coordination, and commitment in data management. This course covers vital areas such as Oil and Gas Data Management, Data Analytics in Oil and Gas, and Oil and Gas Industry Data. It aims to make business processes more efficient and foster innovative information technology implementations. Attendees will explore Data Governance in Oil and Gas, Oil and Gas Information Management, Oil and Gas Data Security, Business Intelligence in Oil and Gas, and E&P Data Management. By integrating Data Silos and focusing on Centralized Data Management, participants will gain insights into Data Management Systems, Data Quality, and Oil and Gas Digital Transformation. This ensures a comprehensive understanding of Data Management Best Practices and Standards for Oil and Gas professionals.

Target Audience:

- Project Managers
- Program Managers
- Technical Managers
- Process Engineers
- Instrumentation Engineers
- Supply Chain Managers
- Asset Managers
- Geoscientists
- Production Engineers

Targeted Organizational Departments:

- Exploration & Production E&P
- Information Technology
- Data Management
- Operations
- Asset Management
- Supply Chain Management
- Business Intelligence and Analytics

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Targeted Industries:

- Oil and Gas Exploration and Production
- Petroleum Refining
- Petrochemicals
- Energy Sector
- Oilfield Services
- Pipeline Transportation
- Energy Consulting Firms

Course Offerings:

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

- Identify sources and formats of data within the oil and gas industry
- Understand the DAMA standard for data management
- Implement a centralized data management system
- Utilize key technology solutions for data management
- Integrate data silos for overall optimization
- Ensure data quality and security
- Apply business intelligence tools in oil and gas
- Use data for digital transformation and business process improvement

Training Methodology:

This course employs a blend of theoretical and practical learning approaches, ensuring a thorough understanding of data management principles. Participants will engage in case studies, group work, interactive sessions, and hands-on activities. The methodology includes video materials, presentations, and practical work with data management systems and software. This interactive approach ensures participants can apply the knowledge gained to real-world scenarios, enhancing their skills in Oil and Gas Data Management, Data Analytics, and Data Governance.

Course Toolbox:

- Comprehensive workbooks and reading materials
- Online resources and reference materials
- Checklists and templates for data management processes
- Case studies and examples from the oil and gas industry

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Course Agenda:

Day 1: Data Management within Oil and Gas

- **Topic 1:** Introduction, Definitions, and Framework of Data Management in Oil and Gas Industry
- **Topic 2:** Identifying Data Sources
- **Topic 3:** The Business Value for Data Management
- **Topic 4:** The Data Management Lifecycle
- **Topic 5:** Exploring Data Domains and Facets
- **Reflection & Review:** Key Concepts and Industry Applications

Day 2: Data Governance, Handling, and Quality

- **Topic 1:** Cultivating a Data Culture in Oil and Gas
- **Topic 2:** Business Drivers for Data Governance
- **Topic 3:** Managing Data Projects
- **Topic 4:** Implementing Data Governance Guidelines
- **Topic 5:** Data Rules, Translation, and Transformation
- **Reflection & Review:** Best Practices in Data Governance

Day 3: Information Management Fundamentals

- **Topic 1:** Ensuring Data Quality Assurance
- **Topic 2:** Principles of Data Sharing
- **Topic 3:** Data Life Cycle and Quality Management
- **Topic 4:** Data Models and Reference Data
- **Topic 5:** From Data to Information to Knowledge
- **Reflection & Review:** Enhancing Data Quality and Management

Day 4: Data Storage and Security

- **Topic 1:** Data Security Strategies
- **Topic 2:** Access Management for Data
- **Topic 3:** Visualizing Data Effectively
- **Topic 4:** Ensuring Data Traceability
- **Topic 5:** Business Intelligence in Oil and Gas
- **Reflection & Review:** Securing and Visualizing Data

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Day 5: E&P Data Management for Business Improvement

- **Topic 1:** Aligning E&P Business Processes with Data Management
- **Topic 2:** Creating Digital Twins for E&P Processes
- **Topic 3:** Data Governance in E&P
- **Topic 4:** Data for Disaster Recovery and Business Continuity
- **Topic 5:** Implementing Data Management Systems in E&P
- **Reflection & Review:** Leveraging Data for E&P Optimization

How This Course is Different from Other Oil and Gas Courses:

This course stands out by offering a comprehensive, hands-on approach tailored specifically for the oil and gas industry. It uniquely integrates Data Management Systems with real-world applications, focusing on Business Intelligence and Digital Transformation. Participants gain practical experience with data management software and tools, ensuring they can immediately apply their knowledge. The course emphasizes the importance of Data Quality, Security, and Governance, providing a holistic view of Data Management Best Practices and Standards. Additionally, it covers the integration of Data Silos and the implementation of Centralized Data Management, ensuring participants are equipped to handle the complexities of modern data management in the oil and gas sector.