

TRAINING TITLE

PROCESS DATA GATHERING, ANALYSIS AND REPORTING

Training Duration

5 day

Training Venue and Dates

Ref. No. PE311	Process Data gathering, Analysis and Reporting	5	08-12 Sep. 2025	\$5,500	ABU DHABI
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In any of the 4 or 5-star hotels. The exact venue will be informed later.

Training Fees

- \$5,500 per participant for Public Training includes Materials/Handouts, tea/coffee breaks, refreshments & Lunch

Training Certificate

Define Management Consultants Certificate of course completion will be issued to all attendees.

TRAINING DESCRIPTION

In the oil and gas industry, data is essential for efficient operations, from exploration to production and refining. Gathering accurate process data, analyzing it effectively, and reporting actionable insights are critical for optimizing performance, ensuring safety, and supporting decision-making. This 5-day course is designed to provide participants with the knowledge and skills necessary to effectively gather, analyze, and report process data specific to oil and gas operations.

TRAINING OBJECTIVES

Upon the successful completion of this course, participants will be able to:-

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

1. Understand the types of process data used in the oil and gas industry and the systems used to gather them (SCADA, DCS, etc.).
2. Apply effective methods for collecting, validating, and pre-processing data from various sources.
3. Use statistical and analytical tools to interpret and analyze process data for improved operations.
4. Create informative and visually compelling reports and dashboards to communicate findings to stakeholders.

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5. Leverage advanced data analytics techniques, including predictive maintenance and production optimization.
6. Address the challenges of data integration, quality, and security in oil and gas operations.

WHO SHOULD ATTEND?

This course is designed for professionals working in the oil and gas industry, including those involved in data management, analysis, and reporting, such as:

- **Process Engineers and Technicians**
- **Operations Managers**
- **Data Analysts and Engineers**
- **Production and Maintenance Supervisors**
- **HSE Professionals**
- **Asset Management Teams**
- **Business Analysts**
- **IT Professionals in Oil and Gas**

TRAINING METHODOLOGY

A highly interactive combination of lectures and discussion sessions will be managed to maximize the amount and quality of information and knowledge transfer. The sessions will start by raising the most relevant questions and motivating everybody to find the right answers. You will also be encouraged to raise your own questions and to share in the development of the right answers using your own analysis and experiences. Tests of multiple-choice type will be made available on daily basis to examine the effectiveness of delivering the course.

Very useful Course Materials will be given.

- 30% Lectures
- 30% Workshops and work presentation
- 20% Group Work & Practical Exercises
- 20% Videos & General Discussions

COURSE PROGRAM:

Day 1: Fundamentals of Process Data in Oil and Gas Operations

- **Importance of process data in oil and gas operations: exploration, production, and refining.**
- **Overview of data types: real-time, historical, operational, and environmental data.**
- **Data gathering systems in oil and gas: SCADA, DCS, and PLC systems.**

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- Key principles of accurate and reliable data collection.
- Overview of instrumentation and sensors used in oil and gas for pressure, temperature, flow, and composition monitoring.
- Introduction to field devices and data acquisition tools.

Day 2: Data Gathering and Pre-Processing

- Data collection methodologies: manual logs, automated systems, and remote monitoring.
- Challenges in data gathering in oil and gas environments: harsh conditions, scalability, and integration.
- Case study: Overcoming data collection challenges in offshore platforms.
- Data validation and cleaning techniques: eliminating noise and errors.
- Preparing raw data for analysis: formatting, filtering, and normalizing datasets.
- Pre-processing data from a simulated oil and gas process scenario.

Day 3: Process Data Analysis Techniques

- Analysis of production data: well performance, reservoir metrics, and equipment efficiency.
- Statistical tools for oil and gas applications: trend analysis, regression, and outlier detection.
- Identifying and interpreting Key Performance Indicators (KPIs) specific to oil and gas operations.
- Advanced analysis methods: production forecasting, downtime analysis, and optimization.
- Troubleshooting using data insights: identifying bottlenecks, inefficiencies, and anomalies.
- Analyzing sample data for performance improvement in upstream operations.

Day 4: Reporting and Visualization in Oil and Gas Operations

- Effective reporting strategies for oil and gas stakeholders: operators, engineers, and management.
- Introduction to visualization tools: dashboards, graphs, and geospatial mapping.
- Developing reports tailored to drilling, production, and refining activities.
- Case studies: Examples of impactful reporting in oil and gas projects.
- Workshop: Creating a dashboard to display key metrics from oil and gas process data.
- Presenting data insights to stakeholders for decision-making.

Day 5: Advanced Topics, Challenges, and Emerging Trends

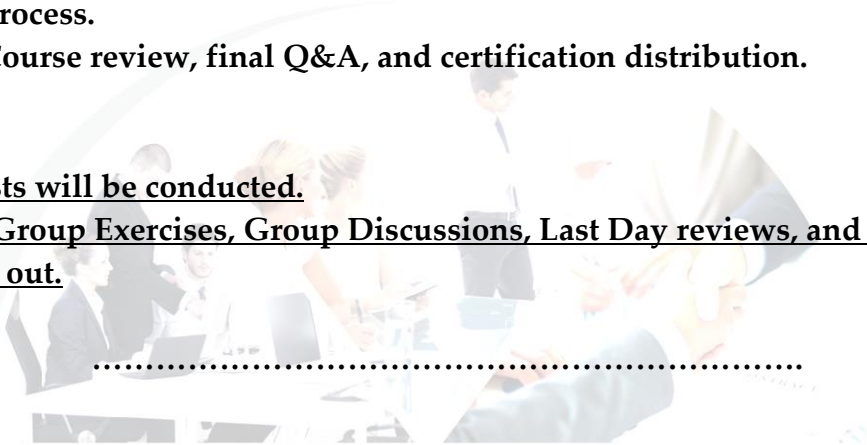
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- Advanced applications of process data: predictive maintenance, production optimization, and asset management.
- Challenges in data handling: big data, cybersecurity, and data integration across systems.
- Overview of regulatory requirements for data reporting in the oil and gas industry.
- Emerging trends: leveraging IoT, machine learning, and AI for advanced data analytics.
- End-to-end data gathering, analysis, and reporting for a simulated oil and gas process.
- Course review, final Q&A, and certification distribution.

NOTE:

Pre- & Post Tests will be conducted.

Case Studies, Group Exercises, Group Discussions, Last Day reviews, and assessments will be carried out.



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