

TRAINING TITLE

ENGINEERING OPERATIONS AND PRODUCTIVITY

Training Duration

5 day

Training Venue and Dates

Ref. No. RM060	Engineering Operations and Productivity	5	22-26 Sep 2025	\$5,500	DUBAI, UAE
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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

The oil and gas industry is a cornerstone of the global economy, where efficient engineering operations and productivity optimization are critical to achieving profitability, safety, and sustainability. In a sector marked by complex processes, high operational costs, and evolving technologies, professionals must possess a deep understanding of operational strategies and productivity tools to drive continuous improvement.

This 5-day course is designed to provide participants with the knowledge, methodologies, and practical skills necessary to enhance operational efficiency and productivity across upstream, midstream, and downstream operations.

www.definetraining.com

TRAINING OBJECTIVES

By the end of the course, participants will be able to understand

1. Understand the fundamentals of engineering operations in the oil and gas sector.
2. Learn proven methodologies to measure, analyze, and improve productivity.
3. Explore strategies to reduce downtime, enhance reliability, and optimize processes.
4. Gain insights into modern tools and technologies, such as IoT, predictive analytics, and process simulation.

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5. Develop skills to manage risks, maintain safety standards, and balance economic and environmental considerations.
6. Work on real-world case studies and group projects to apply learning in practical scenarios.

WHO SHOULD ATTEND?

This course is ideal for:

- Operations and production engineers.
- Maintenance and reliability professionals.
- Plant and facility managers.
- Project engineers involved in oil and gas processes.
- Any professional aiming to enhance operational productivity 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: www.definettraining.com

Day 1: Fundamentals of Engineering Operations

- Introduction to Engineering Operations in Oil and Gas
- Overview of the Oil and Gas Value Chain: Exploration to Distribution
- Key Performance Indicators (KPIs) for Operational Excellence
- Basics of Productivity: Measuring and Analyzing Efficiency
- Understanding Production Systems: Reservoir to Refinery
- Case Study: Identifying Bottlenecks in a Simplified Oil Processing Operation

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Day 2: Operational Strategies for Productivity Enhancement

- Lean Principles in Oil and Gas Operations
- Techniques for Reducing Downtime and Improving Uptime
- Effective Planning and Scheduling for Maintenance and Turnarounds
- Equipment Reliability and Maintenance Best Practices
- Data-Driven Decision Making in Operations
- Designing an Efficient Maintenance Schedule

Day 3: Process Optimization in Operations

- Process Analysis and Optimization Techniques
- Introduction to Operational Excellence Models (e.g., Six Sigma, Kaizen)
- Enhancing Equipment and Process Reliability
- Simulating Process Improvements Using Tools (e.g., Aspen, Excel)
- Troubleshooting Common Process Issues in Oil and Gas Facilities
- Case Study: Optimizing a Gas Compression Facility

Day 4: Digital Transformation and Productivity Tools

- Introduction to Digital Oilfields: IoT, AI, and Big Data
- Role of Automation and Control Systems in Enhancing Productivity
- Software Tools for Productivity Improvement (e.g., CMMS, SCADA)
- Applications of Predictive Analytics in Maintenance and Operations
- Cybersecurity and Data Integrity in Oil and Gas Operations
- Interactive Session: Applying Digital Tools to Solve Operational Challenges

Day 5: Integrating Engineering Operations for Long-Term Productivity

- Integrating Operations, Safety, and Sustainability Goals
- Economic and Environmental Considerations in Productivity Improvement
- Risk Management and Hazard Identification in Operations
- Developing a Productivity Improvement Plan for a Hypothetical Facility
- Review of Key Learnings and Best Practices
- Course Assessment and Feedback

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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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