

OPERATIONS & MAINTENANCE - OIL & GAS PROCESSING FACILITIES FOR OPERATIONS & MAINTENANCE

"Maximizing Facility Uptime, Efficiency, and Safety in Oil & Gas Operations"

Schedule

Venue (InHouse)	Fees
At Your Organization Premises	Ask For The Quotation

► **Available delivery methods:** In-House Training

Introduction

Efficient operations and proactive maintenance are the backbone of safe, reliable oil and gas production. From gas dehydration units and crude separation trains to rotating equipment and safety systems, operations and maintenance teams play a critical role in sustaining production, minimizing downtime, and ensuring compliance.

This course provides essential knowledge and practical skills for operations and maintenance professionals working in upstream and midstream oil & gas facilities. It covers core facility systems, maintenance strategies, troubleshooting methods, and operational best practices with a focus on equipment integrity, safety, and performance optimization.

Objectives

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

- Understand the structure and functionality of key oil & gas processing systems
- Operate processing facilities safely and efficiently under varying field conditions
- Apply preventive, predictive, and corrective maintenance principles
- Conduct routine inspections, monitoring, and troubleshooting of equipment
- Ensure compliance with operational, HSE, and maintenance standards
- Optimize plant availability and reduce unplanned shutdowns

Why Attend

- Enhance your technical and practical understanding of oil & gas facility operations
- Build a preventive maintenance culture with a focus on safety and reliability
- Reduce equipment failures and improve production performance
- Learn hands-on tools for inspection, fault detection, and issue resolution
- Stay compliant with industry codes, HSE requirements, and reliability standards

Target Audience

This program is designed for:

- Operations and field technicians
- Maintenance engineers and supervisors
- Facility operators and production personnel
- Mechanical and instrumentation technicians
- Reliability and asset integrity professionals
- Technical support and plant engineers

Individual Benefits

Key competencies that will be developed include:

- Solid understanding of oil & gas processing operations
- Ability to recognize and respond to plant upsets and abnormalities
- Practical application of O&M strategies including CBM, PdM, and RCM
- Skills in reading and interpreting P&IDs and system schematics
- Improved ability to contribute to HSE goals and performance targets

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Reduced equipment downtime and maintenance costs
- Enhanced facility safety and operational integrity
- Streamlined operations and improved shift performance
- Improved incident reporting, diagnostics, and troubleshooting
- Stronger alignment between field operations and technical support teams

Instructional Methodology

The course follows a blended learning approach combining theory with practice:

- Strategy Briefings – Facility systems, O&M planning, reliability frameworks
- Case Studies – Failure cases, best practices, maintenance optimization
- Workshops – Hands-on activities for inspection, diagnostics, and SOPs
- Peer Exchange – Discussions on field challenges and O&M experiences
- Tools – Templates for maintenance planning, performance tracking, and RCA

MAWA EVENTS

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Course Outline

DETAILED 5-DAY COURSE OUTLINE (CUSTOMIZABLE)

Training Hours: 7:30 AM - 3:30 PM Daily Format: 3-4 Learning Modules | Coffee Breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 - 02:00

Day 1: Introduction to Oil & Gas Processing Facilities

- Module 1: Overview of Upstream & Midstream Facilities (07:30 - 09:30)
- Facility types: Onshore/offshore, gas plants, terminals
- Functional overview: Separation, dehydration, compression
- Module 2: Process Flow and System Interfaces (09:45 - 11:15)
- PFDs, P&IDs, operating logic, instrumentation overview
- Module 3: Introduction to Operations Roles & Responsibilities (11:30 - 01:00)
- Roles in O&M, shift patterns, control room vs field
- Module 4: Workshop - Reading P&IDs and SOPs (02:00 - 03:30)

Day 2: Facility Systems and Key Equipment

- Module 1: Separation and Dehydration Systems (07:30 - 09:30)
- 2-phase/3-phase separators, heaters, dehydration units
- Module 2: Pumps, Compressors, and Prime Movers (09:45 - 11:15)
- Operating principles, start-up/shutdown procedures
- Module 3: Instrumentation, Valves, and Control Systems (11:30 - 01:00)
- Pressure/temperature/flow monitoring, safety interlocks
- Module 4: Workshop - Routine Checks and Lineups (02:00 - 03:30)

Day 3: Maintenance Strategies and Tools

- Module 1: Preventive, Predictive, and Corrective Maintenance (07:30 - 09:30)
- PM vs PdM vs CM, best practices, documentation
- Module 2: Reliability Centered Maintenance (RCM) (09:45 - 11:15)
- Failure modes, maintenance optimization
- Module 3: Lubrication, Cleaning, and Calibration Practices (11:30 - 01:00)
- Scheduled servicing routines, field measurements
- Module 4: Workshop - Maintenance Planning & Checklists (02:00 - 03:30)

Day 4: Troubleshooting and Operational Excellence

- Module 1: Equipment Fault Identification and Resolution (07:30 - 09:30)
- Common failure symptoms and responses
- Module 2: Emergency Handling and Start-Up Procedures (09:45 - 11:15)
- Plant upset scenarios, isolation & restart logic
- Module 3: HSE Compliance and Operational Safety (11:30 - 01:00)
- Permit to work, LOTO, hazard identification
- Module 4: Workshop - Fault Diagnosis Scenarios (02:00 - 03:30)

Day 5: Integration, KPI Monitoring, and Review

- Module 1: Integration of Operations & Maintenance Teams (07:30 - 09:30)
- Communication, handover, task tracking
- Module 2: Operational KPIs and Performance Monitoring (09:45 - 11:15)
- MTTR, OEE, availability, failure rate analysis
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Module 3: Final Review and Action Plan Development (11:30 – 01:00)

- Developing site-specific SOPs and improvement plans
- Module 4: Final Workshop – Operations Performance Plan (02:00 – 03:30)

Certification

Participants will receive a Certificate of Completion in Operations & Maintenance – Oil & Gas Processing Facilities, validating their capability to manage safe, reliable, and efficient operations and maintenance across oil & gas installations.

Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
- **Industry-Leading Faculty:** Courses delivered by seasoned professionals with hands-on experience.
- **Practical Insights:** Learn to turn theory into actionable strategies for real-world business impact.
- **Client-Focused Solutions:** Customized programs designed to achieve your organisation’s unique goals.

<p>In-House / Customized Training</p> <p>Interested in running this course for your team?</p> <p>Please contact us:</p>	<p>TEL:</p> <p>+601116373203</p>	<p>EMAIL:</p> <p>info@mawaevents.net</p>
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