



Maintenance & Reliability Management

Process Troubleshooting and Problem Solving

Course Introduction

This course is designed to enhance the troubleshooting and problem-solving skills crucial for optimizing industrial operations. By adopting a proactive approach, participants will learn how to minimize downtime, extend asset life, and improve overall safety and efficiency. This training is ideal for anyone looking to advance their operational capabilities and career.

Target Audience

- Operations supervisors and managers
- Maintenance and process engineers
- Production personnel involved in troubleshooting and problem-solving
- Anyone interested in improving operational efficiency and reliability

Learning Objectives

- Understand post-commissioning operations and their importance.
- Apply a structured framework for troubleshooting and problem-solving.
- Identify opportunities for continuous improvement in operational processes.
- Recognize the significance of effective work practices in achieving world-class performance.
- Foster a proactive organizational culture focused on preventing issues before they arise.

Course Outline

• 01 DAY ONE

Understanding the Operational Landscape

Session 1: Introduction to Post-Commissioning Operations

- Overview of asset classes and their significance in operations.
- Transitioning from reactive to proactive problem-solving methods.

Session 2: Process Modelling for Simplification

- Techniques for modeling operational processes.
- Key performance variables: Speed, Quality, and Cost.

Session 3: Performance Measurement and Complexity

- Measuring complexity and performance in operational systems.
- Introduction to the Pyramid of Excellence in operational processes.

Session 4: Configuration and Optimization

- Understanding the interplay between configuration, operation, and optimization.
- Developing a maturity index for effective planning and control.

Session 5: Case Study Discussion

- Analyzing a world-class operations case study to identify best practices.

• 02 DAY TWO

Practical Tools and Techniques for Problem Solving

Session 1: Analyzing Dynamic Relationships

- Engaging in interactive analysis of variable relationships in operations.

Session 2: Introduction to Problem-Solving Techniques

- Overview of various tools and techniques for effective troubleshooting.
- Selecting appropriate tools for specific problems.

Session 3: Practical Application of Tools

- Hands-on exercises in problem analysis using selected tools.

- Case studies for practical application of learned techniques.

Session 4: Advanced Problem Analysis

- Techniques for in-depth problem analysis and resolution.
- Group activities to reinforce learning through collaboration.

• 03 DAY THREE

People, Change Management, and Continuous Improvement

Session 1: Understanding People Dynamics

- The role of team dynamics in effective troubleshooting and problem-solving.
- Identifying individual motivators and their impact on team performance.

Session 2: Developing Skills and Managing Change

- Strategies for fostering troubleshooting and problem-solving skills.
- Implementing change management principles through a transition matrix.

Session 3: Leadership and Teamwork

- Exploring essential leadership attributes for effective management.
- Cross-functional teamwork and collaboration in problem-solving.
- **Session 4: Application of Theory to Practice**
- Introduction to the Theory of Inventive Problem Solving (TRIZ).
- Strategies for auditing processes against dynamic standards.

Session 5: Open Forum for Discussion

- Discussing maintenance tactics and outsourcing operational functions.
- Revisiting key concepts and techniques learned during the course.
- Developing personalized action plans for participants to implement in their organizations.

Confirmed Sessions

| FROM | TO | DURATION | FEES | LOCATION |
|---------------|----------------|----------|------------|----------------------|
| May 12, 2025 | May 14, 2025 | 3 days | 3250.00 \$ | UAE - Abu Dhabi |
| Sept. 8, 2025 | Sept. 10, 2025 | 3 days | 3250.00 \$ | UAE - Abu Dhabi |
| Dec. 8, 2025 | Dec. 10, 2025 | 3 days | 4950.00 \$ | switzerland - Geneva |