Introduction

The **Process Industry** is capital-intensive and characterized by both high risk and intense international competition. For companies to survive and grow in such challenging environments, they must strive for **operational excellence**. This course on **Operational Excellence in the Process Industry** is designed to explain the key factors behind operational excellence and how to implement them into a cohesive improvement program.

This course introduces the latest tools and techniques, explained simply and practically, enabling delegates to apply them to their own situation. It serves as a foundational step for those interested in pursuing a **Master's in Business Operational Excellence** or obtaining an **Operational Excellence Certification**. By improving **operational efficiencies**, reducing risks, and fostering a culture of **continuous improvement**, participants will be better equipped to pursue further studies or certifications in operational excellence.

Understanding Operational Excellence

Operational excellence is a fundamental approach focused on ensuring that organizations perform at their highest potential. It involves aligning **processes**, **people**, and **strategies** to achieve **optimal performance**. Achieving operational excellence certification demonstrates a commitment to continuous improvement and mastering business practices that enhance organizational value.

This training course aims to equip professionals with the skills needed to implement **operational excellence strategies** within their organizations, improving processes and fostering a culture of continuous growth.

Targeted Groups

This course is designed for professionals involved in the following areas:

- **Operations** professionals
- **Process** professionals
- **Reliability and Maintenance** professionals
- **Safety** professionals
- Other professionals engaged in **process improvement**

Course Objectives

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

- Understand best practice techniques for achieving **operational excellence**.
- Recognize and assess both **technical** and **human risks**, along with their implications for operations.
- Design a **tailored operational improvement plan** that addresses significant risks in their organization.

- Learn how to develop an **action plan** to integrate these technologies into their operations strategy and measure benefits.

Targeted Competencies

Upon completing this course, participants will be able to:

- Understand the principles of **safety**, **risk**, and **continuity of operations**.
- Apply **people management** techniques.
- Improve **plant reliability** and **asset care**.
- Implement **quality systems** and **continuous improvement** strategies.
- Understand **costing** and **inventory control systems**.

Course Content

Unit 1: Safety

- **Safety first**: Establishing a safety-first culture.
- **Behavioral safety**: Identifying and addressing human factors.
- **Risk assessment**: Assessing and mitigating risks.
- Understanding **permits to work**, **hazard and operability studies (HAZOP)**, and other standard safety systems.
- Analyzing **Near Misses**, **Incidents**, and **Accidents** for improvements.
- Establishing a **Complete Safety Management System**.

Unit 2: Continuity of Operations – Plant Reliability

- Understanding **operational risks** and their impact.
- **Vulnerability and resilience assessment**: Evaluating plant reliability and resilience.
- **Reliability improvement** strategies for enhancing plant performance.
- **Plant asset care**: Maintaining and caring for plant assets to maximize uptime.
- Developing the correct **maintenance strategy**.
- **Agile manufacturing** approaches for flexibility and continuous improvement.

Unit 3: Quality

- Implementing **process control** techniques.
- Learning about **Six Sigma** principles: Minimizing the six losses and seven wastes.
- Using the **continuous improvement model** to drive performance.
- Ensuring **quality assurance** and the adherence to **Standard Operating Procedures (SOPs)**.
- Applying **error-proofing techniques** to prevent issues and defects.

Unit 4: Costing

- Understanding and managing **cost systems**.
- Implementing **lean manufacturing** principles to reduce waste.
- Efficient **inventory control systems** for cost savings.

- Understanding the **life cycle approach** to equipment selection and maintenance.
- Focusing on **asset management** for optimal resource use.
- Conducting **benchmarking** for continuous performance improvement.

Unit 5: People Management / Development

- **Leadership**: Developing strong leadership within the organization.
- **Empowerment and engagement**: Building a motivated and effective workforce.
- **Change management**: Managing transitions effectively in the organization.
- Developing and managing **performance management systems**.
- **Skills and competency development** to ensure the workforce is equipped to succeed.
- Effective **problem-solving** techniques to address operational challenges.

This course provides the necessary skills and knowledge to pursue operational excellence in the process industry, driving improvements in efficiency, safety, quality, and profitability.