# Production Cost Management & Control for Industrial Operations

## Course general description:

In today's competitive industrial landscape, effective production cost management and control are critical to achieving operational efficiency, profitability, and sustainability. This course is designed to equip participants with the tools, techniques, and strategies needed to analyze, manage, and optimize production costs in industrial operations. Through a combination of theoretical insights, practical case studies, and hands-on exercises, participants will learn how to identify cost drivers, implement cost-control measures, and align production processes with organizational goals.

## Audience:

This course is designed for:

- Production managers and supervisors responsible for cost management.
- Industrial engineers and operations professionals seeking to enhance cost optimization skills.
- Financial analysts and controllers working in manufacturing or industrial settings.
- Supply chain and procurement specialists involved in cost-related decisions.
- Graduates or early-career professionals aiming to specialize in production cost management.

## Course objectives:

Upon completion of the course, participants will acquire:

- Understand the principles and importance of production cost management in industrial operations.
- Develop skills to identify, analyze, and control production cost drivers.
- Learn to apply cost management tools such as budgeting, variance analysis, and activity-based costing.
- Gain proficiency in optimizing resource utilization and reducing waste.
- Be able to integrate lean manufacturing and continuous improvement practices into cost management.
- Apply learned concepts to solve real-world challenges through case studies and simulations.

## Course duration:

5 days

## Course location:

Cairo-Dubai-Istanbul

## Course contents:

**Day-1: Foundations of Production Cost Management**

1. Introduction to Cost Management – Definition, scope, and key cost components (direct, indirect, fixed, variable).
2. Cost Drivers & Operational Impact – Identifying major cost drivers and strategies to mitigate high-cost areas.
3. Efficiency & Cost Control – Understanding the link between cost drivers and operational efficiency.
4. Case Study & Discussion – Analyzing cost drivers in a manufacturing plant.
5. Quiz – Identifying and classifying cost components.

**Day-2: Budgeting and Cost Estimation**

1. Production Budgeting – Master, operating, and production budgets; aligning budgets with business goals.
2. Cost Estimation Methods – Historical data, parametric, and bottom-up approaches; incorporating contingencies.

3. Risk & Accuracy in Estimation – Addressing uncertainties and leveraging software tools.
4. Workshops & Tutorials – Creating production budgets and estimating costs for a product line.
5. Group Activity – Identifying risks in cost estimation.

**Day-3: Cost Analysis and Variance Control**

1. Cost Analysis Techniques – Activity-Based Costing (ABC), break-even analysis, marginal costing.
2. Variance Analysis – Identifying and interpreting material, labor, and overhead variances.
3. Corrective Actions – Addressing cost overruns and inefficiencies.
4. Hands-On Exercise – Performing variance analysis on a production process.
5. Case Study & Quiz – Resolving cost overruns in manufacturing.

**Day-4: Lean Manufacturing and Waste Reduction**

1. Lean Principles – Eliminating waste, improving process flow, and adding value.
2. Lean Tools – Implementing 5S, Kaizen, and Value Stream Mapping.
3. Identifying Waste – The 8 types of waste (TIMWOODS) and root cause analysis techniques.
4. Case Study & Group Discussion – Achieving cost savings through lean initiatives.
5. Quiz – Identifying inefficiencies and waste in a production scenario.

**Day-5: Continuous Improvement and Final Assessment**

1. Sustaining Cost Control – Implementing PDCA (Plan-Do-Check-Act) for continuous cost optimization.
2. Monitoring & KPIs – Tracking key performance indicators for cost management success.
3. Best Practices – Fostering a cost-conscious culture in industrial operations.
4. Final Assessment – Written test covering all course topics.
5. Wrap-Up & Certification – Course feedback session and certificate distribution.

**Methodology:**

- 50% Lectures & concepts
- 20% Case studies
- 30% Workshop & discussion

**Course code: (FINC001)**