

Production & Operations Planning Control

Professional Training Course

Skillslab Training Provider

Skills for Tomorrow's World 



Course Description

Introduction

In today's demanding operational environment, organizations must balance customer requirements, production capacity, workforce availability, material resources, inventory levels, delivery commitments, and cost performance with increasing precision. Poor planning and weak operational control can lead to production delays, excess inventory, capacity bottlenecks, inefficient resource utilization, missed delivery targets, and rising operating costs.

The Production & Operations Planning Control training course provides professionals and decision-makers with a structured framework for planning, coordinating, scheduling, monitoring, and controlling production and operational activities. The program equips participants with practical tools for demand planning, capacity management, production scheduling, inventory coordination, resource optimization, workflow control, performance measurement, and continuous operational improvement.

Designed for government entities, ministries, public sector organizations, large corporations, manufacturing organizations, industrial operations, utilities, and executive professionals, this advanced course connects production planning and operations control with strategic business performance. Participants will learn how to translate demand into realistic operational plans, balance capacity with workload, coordinate materials and resources, improve scheduling accuracy, identify bottlenecks, and strengthen control over operational execution.

The executive-level value of this course lies in its ability to help organizations transform fragmented production activities into coordinated, measurable, and performance-driven operating systems. By integrating planning, scheduling, resource allocation, inventory control, data analysis, and performance management, organizations can improve productivity, reduce lead times, strengthen delivery reliability, optimize costs, and build more resilient operations.

Course Objectives

This course is designed to enable participants to:

- Understand the strategic role of production and operations planning control.
- Translate demand and business requirements into realistic operational plans.
- Balance production capacity, workload, resources, and delivery commitments.
- Develop effective production plans and operational schedules.
- Improve coordination between production, procurement, inventory, maintenance, and logistics.
- Identify and manage capacity constraints and operational bottlenecks.
- Improve inventory availability while reducing excess stock.
- Strengthen production monitoring and operational control.
- Use data and performance indicators to improve decision-making.
- Reduce production delays, idle time, waste, and inefficient resource utilization.
- Improve delivery performance and operational reliability.
- Develop practical improvement plans for production and operations performance.

Course Content

Day 1: Strategic Production and Operations Planning Fundamentals

- Understanding the role of production and operations in organizational performance.
- The strategic importance of planning and operational control.
- Linking business strategy with production and operating requirements.
- Understanding the production and operations planning hierarchy.
- Long-term, medium-term, and short-term planning.
- Translating customer demand into operational requirements.
- Understanding production environments and operating models.
- Make-to-stock, make-to-order, and mixed operating environments.
- Understanding production volume, variety, and complexity.
- Identifying operational dependencies and planning constraints.

- Coordinating sales, operations, procurement, inventory, and logistics.
- Common causes of production planning failure.
- Assessing current planning and control maturity.
- Practical exercise: evaluating an existing production and operations planning system.

Day 2: Demand Planning, Capacity Management, and Resource Alignment

- Understanding demand patterns and operational requirements.
- Using historical data and business information in planning.
- Managing demand variability and uncertainty.
- Developing realistic production requirements.
- Understanding available and required capacity.
- Measuring workforce, equipment, facility, and process capacity.
- Identifying capacity gaps and constraints.
- Managing peak workloads and changing demand.
- Balancing demand with available resources.
- Evaluating overtime, additional shifts, outsourcing, and capacity expansion.
- Understanding utilization, efficiency, and effective capacity.
- Managing resource conflicts across multiple activities.
- Developing capacity plans aligned with operational priorities.
- Practical workshop: preparing a demand and capacity balancing plan.

Day 3: Production Scheduling, Workflow Coordination, and Inventory Control

- Converting production plans into executable schedules.
- Principles of effective production scheduling.
- Prioritizing jobs, orders, and operational activities.
- Understanding sequencing and workflow dependencies.
- Managing setup and changeover requirements.
- Coordinating people, equipment, materials, and information.

- Managing work in progress.
- Identifying and controlling production bottlenecks.
- Understanding the relationship between production and inventory.
- Managing raw materials, work in progress, and finished goods.
- Improving material availability for scheduled production.
- Reducing shortages, excess inventory, and operational interruptions.
- Coordinating production with procurement and warehouse operations.
- Practical workshop: developing an integrated production schedule.

Day 4: Production Control, Performance Monitoring, and Problem Resolution

- Understanding the production control cycle.
- Comparing planned performance with actual results.
- Monitoring production progress and operational execution.
- Identifying schedule deviations and performance gaps.
- Managing delays, disruptions, and unexpected changes.
- Developing effective operational response mechanisms.
- Understanding production lead time and cycle time.
- Monitoring throughput and output performance.
- Measuring capacity utilization and resource productivity.
- Tracking schedule adherence and delivery performance.
- Monitoring inventory and work-in-progress levels.
- Using operational dashboards and control reports.
- Conducting structured analysis of recurring operational problems.
- Developing corrective and preventive actions.
- Practical workshop: creating a production and operations control dashboard.

Day 5: Operations Optimization and Integrated Performance Improvement

- Integrating planning, scheduling, execution, and control.

- Improving coordination across operational functions.
- Reducing waste, delays, idle time, and unnecessary activities.
- Improving production flow and operational continuity.
- Managing constraints and improving bottleneck performance.
- Improving responsiveness to changing customer requirements.
- Strengthening operational resilience and continuity.
- Using technology and digital systems to support planning and control.
- Applying operational data and analytics to decision-making.
- Developing meaningful production and operations performance indicators.
- Conducting regular planning and performance reviews.
- Establishing accountability for operational results.
- Building a culture of disciplined execution and continuous improvement.
- Developing an organizational roadmap for production and operations excellence.
- Final workshop: creating a practical production and operations improvement action plan.

Target Audience

This course is designed for professionals responsible for production, operations, planning, scheduling, resources, inventory, and performance improvement, including:

- Production managers.
- Operations managers.
- Production planners.
- Operations planners.
- Production controllers.
- Scheduling professionals.
- Manufacturing managers and supervisors.
- Plant managers.
- Industrial engineers.
- Operations engineers.

- Supply chain professionals.
- Inventory and materials management professionals.
- Procurement and logistics professionals.
- Maintenance planning professionals.
- Operational excellence specialists.
- Project and program managers.
- Government and public sector operations professionals.
- Executives responsible for production and operational performance.

Course Requirements

Participants should have a general understanding of production, operations, manufacturing, supply chain, inventory, logistics, engineering, or resource planning.

Previous experience in production planning or operations control is beneficial but not mandatory. Participants are encouraged to bring examples of current production challenges, planning problems, capacity constraints, scheduling difficulties, inventory issues, or operational performance gaps for discussion during practical exercises and workshops.

Training Methodology

The course uses an interactive, practical, and implementation-focused training methodology designed to help participants apply production and operations planning principles in real organizational environments.

The training methodology includes:

- Expert-led presentations and guided discussions.
- Real-world production and operations case studies.
- Demand and capacity planning exercises.
- Production scheduling workshops.
- Resource allocation activities.
- Inventory coordination exercises.
- Bottleneck and constraint analysis.

- Operational problem-solving scenarios.
- Performance measurement activities.
- Production control simulations.
- Group planning and decision-making exercises.
- Workplace implementation and action planning.

The methodology ensures that participants not only understand production and operations planning control principles but can also apply them to improve real-world operational performance.

Learning Outcomes

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

- Explain the strategic role of production and operations planning control.
- Translate demand requirements into realistic production and operational plans.
- Evaluate available capacity and identify resource constraints.
- Balance workload with people, equipment, materials, and time.
- Develop practical production plans and operational schedules.
- Coordinate production with procurement, inventory, maintenance, and logistics.
- Identify and manage operational bottlenecks.
- Improve material availability and reduce production interruptions.
- Monitor planned versus actual production performance.
- Respond effectively to delays and operational deviations.
- Develop meaningful production and operations performance indicators.
- Improve resource utilization, productivity, and workflow.
- Reduce lead times, excess inventory, and operational waste.
- Improve delivery reliability and schedule performance.
- Develop a sustainable production and operations improvement plan.

Instructor Profile

An internationally certified expert with extensive practical and consulting experience.

The instructor brings extensive expertise in production planning, operations control, capacity management, scheduling, resource optimization, inventory coordination, operational excellence, performance management, and process improvement across complex public and private sector environments.

The course delivery combines strategic insight with practical implementation experience, enabling participants to understand not only how effective production and operations planning systems should be designed, but also how to implement and improve them successfully within real organizations.

Contact Us

For registration inquiries, upcoming dates, or group pricing, please contact us:

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