

Course No. 1665

Production Performance Management & KPI Optimization Training Course

OPERATIONS & PRODUCTION MANAGEMENT
INDUSTRIAL ENGINEERING, MAINTENANCE & OPERATIONS

DURATION

5 Days

DELIVERY

Classroom



Course Overview

The Production Performance Management & KPI Optimization Training Course provides an advanced and practical framework for measuring, analyzing, and improving production and operational performance. The course enables participants to develop effective performance management systems that connect production objectives with operational strategy and transform production data into meaningful performance indicators that support better management decisions.

Effective production performance management requires more than tracking output volumes. High-performing organizations must monitor productivity, efficiency, quality, cost, equipment utilization, downtime, resource effectiveness, schedule adherence, and operational reliability. This course provides participants with practical methodologies for selecting relevant Key Performance Indicators, establishing performance targets, analyzing deviations, identifying root causes, and converting performance results into measurable improvement actions.

The program focuses on the design and optimization of production KPIs, including productivity indicators, equipment efficiency, production efficiency, downtime, quality performance, rejection and rework rates, capacity utilization, labor productivity, material efficiency, and production plan adherence. Participants will also examine how different indicators interact and how balanced KPI frameworks can prevent isolated performance measures from creating unintended operational consequences.

A strong emphasis is placed on performance analysis, operational dashboards, management reporting, variance analysis, root cause analysis, and continuous improvement. Participants will learn how to distinguish between symptoms and underlying performance problems, evaluate the effectiveness of existing KPIs, and establish performance review mechanisms that connect operational results with accountability, corrective actions, and improvement priorities.

Through practical exercises, production case studies, performance data analysis, and workshop activities, participants will develop the ability to build integrated KPI frameworks, analyze production performance gaps, design operational dashboards, evaluate improvement initiatives, and prepare management-oriented performance reports. The Production Performance Management & KPI Optimization Training Course supports manufacturing, oil and gas, petrochemical, energy, engineering, industrial, and other operational organizations seeking stronger performance visibility and sustainable operational improvement.

Objectives

- Analyze advanced production performance management principles and their relationship with operational and organizational objectives.
- Evaluate existing production performance measurement systems and identify gaps in KPI selection, relevance, and application.
- Design appropriate Key Performance Indicators for productivity, efficiency, quality, cost, delivery, and resource utilization.
- Apply structured methods for establishing realistic production performance targets aligned with operational plans and available resources.
- Analyze actual performance against planned and targeted results to identify significant deviations and performance gaps.
- Evaluate equipment and resource effectiveness using appropriate indicators for utilization, availability, downtime, and productivity.
- Apply root cause analysis techniques to identify the underlying causes of recurring production and operational performance problems.
- Design practical production performance dashboards that provide management and operational teams with clear and timely performance visibility.
- Improve integration between production KPIs and related indicators for quality, maintenance, inventory, supply chain, workforce, and cost.
- Evaluate the effectiveness of production improvement initiatives using measurable performance indicators and defined targets.
- Strengthen the use of operational data and performance analysis in management decision-making and corrective action planning.
- Develop an integrated production performance improvement framework by the end of the course.

Who Should Attend

This training course is designed for production managers, operations managers, plant managers, operational performance managers, production supervisors, production engineers, process engineers, industrial engineers, performance analysts, production planners, and professionals responsible for production efficiency, operational performance, and performance measurement.

The course is particularly relevant to professionals working in manufacturing, oil and gas,

petrochemicals, energy, engineering, heavy industry, utilities, and industrial services. It is suitable for specialists responsible for production performance monitoring, productivity analysis, operational reporting, KPI development, process improvement, production planning, and performance optimization.

The program will also benefit senior managers, department heads, quality managers, maintenance managers, supply chain managers, finance professionals, and executive decision makers who need to strengthen performance visibility, connect operational indicators with organizational objectives, and use production data to support informed decisions and measurable improvement.

Learning Outcomes

- Evaluate the effectiveness of a production performance management system and identify measurement and reporting gaps.
- Identify appropriate Key Performance Indicators for different production and operational levels.
- Design balanced KPI frameworks covering productivity, efficiency, quality, cost, delivery, and resource utilization.
- Establish practical production performance targets aligned with production plans, capacity, and available resources.
- Analyze actual performance against planned and targeted results and identify the most significant causes of deviation.
- Measure and evaluate equipment efficiency, production productivity, downtime, utilization, and capacity performance.
- Apply root cause analysis techniques to recurring production and productivity problems.
- Design operational dashboards that provide clear and timely visibility of production performance.
- Prepare management performance reports that connect results with targets, responsibilities, and corrective actions.
- Integrate production KPIs with quality, maintenance, inventory, supply chain, workforce, and cost performance indicators.
- Evaluate the measurable impact of productivity and operational improvement initiatives.
- Develop a practical framework for strengthening production performance management and KPI optimization within the organization.

Course Outline

DAY 01

Foundations of Production Performance Management

- The strategic role of production performance management in operational excellence
- Linking production strategy, operational objectives, and performance measurement
- Key dimensions of production performance: productivity, efficiency, quality, cost, and delivery
- Principles of performance measurement at strategic, tactical, and operational levels

PRACTICAL APPLICATION

Evaluate a production performance system and identify measurement gaps and opportunities for improvement

DAY 02

Production KPI Design & Optimization

- Principles of selecting and designing effective Key Performance Indicators
- Productivity, efficiency, capacity utilization, and production output indicators
- Quality performance indicators, rejection rates, defects, and rework
- Equipment availability, utilization, downtime, and operational effectiveness indicators

PRACTICAL APPLICATION

Design an integrated production KPI framework for a manufacturing or industrial operation

DAY 03

Performance Analysis, Variance & Root Cause Analysis

- Analyzing actual production performance against targets and operational plans
- Performance trends, variance analysis, and identification of performance gaps
- Identifying bottlenecks and sources of declining productivity and efficiency
- Root cause analysis and structured problem-solving for production performance issues

DAY 03 — CONTINUED

PRACTICAL APPLICATION

Analyze production performance data, identify major performance gaps, determine root causes, and develop corrective actions

DAY 04**Performance Dashboards, Reporting & Decision-Making**

- Designing production and operational performance dashboards
- Daily, weekly, and monthly production performance reporting
- Converting operational data into actionable management information
- Integrating production KPIs with quality, maintenance, inventory, supply chain, and cost indicators

PRACTICAL APPLICATION

Develop a production performance dashboard, interpret performance results, and establish operational priorities

DAY 05**KPI Optimization, Continuous Improvement & Operational Excellence**

- Developing an integrated framework for continuous production performance improvement
- Linking KPIs with accountability, improvement initiatives, corrective actions, and operational responsibilities
- Measuring the impact of productivity and efficiency improvement initiatives
- Building a data-driven performance culture based on accountability, review, and continuous improvement

FINAL WORKSHOP

Develop a comprehensive Production Performance Management & KPI Optimization action plan covering KPI selection, targets, dashboards, performance analysis, corrective actions, improvement initiatives, and implementation priorities



Register or Request More Information

Course page: <https://quest-training.com/courses/production-performance-management-kpi-optimization-training-course>

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