

Materials Requirements Planning and Control Training Course

29 March – 2 April 2027
Singapore

AGILE LEADERS
Training Center

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Ref: 1792_234670 **Date:** 29 March – 2 April 2027 **Location:** Singapore **Fees:** 6500 Euro

Overview

Materials Requirements Planning and Control Training Course is a one-week intermediate course for materials, inventory, procurement, warehouse, production-planning, and supply-chain teams who leave with a Materials Planning Control Pack. The course addresses unreliable planning inputs, late supply actions, stock discrepancies, and unclear ownership through MRP input validation, material availability control, inventory parameter review, exception decisions, and linked records. Agile Leaders Training Center delivers this course on materials requirements planning and control.

Who Should Attend

- Teams responsible for material requirements, planning runs, and exception messages
- Functions responsible for item, supplier, bill-of-material, and lead-time records
- Teams responsible for purchasing, expediting, receipts, and supplier coordination
- Functions responsible for inventory parameters, stock accuracy, and replenishment
- Teams responsible for production schedules, material availability, and performance reporting

The course assumes participants work with demand, item, inventory, purchasing, warehouse, or production records, and leaves out software configuration, certification preparation, and advanced production-system design.

Departments and Industries

The course supports materials decisions across manufacturing, maintenance, projects, distribution, and service operations.

- Materials planning, production planning, and supply control
- Procurement, purchasing, supplier management, and expediting
- Inventory, warehousing, receiving, storage, and issue control
- Manufacturing, energy, maintenance, engineering, and construction
- Healthcare, retail, food, aviation, technology, and public services

Learning Objectives

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

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- Build a controlled materials-planning data baseline.
- Apply time-phased MRP logic to net requirements.
- Analyze planning exceptions, shortages, and supply dates.
- Evaluate inventory parameters and replenishment choices.
- Use purchasing, receipt, storage, and issue controls.
- Build a Materials Planning Control Pack.

Course Agenda

Day 1: Establish Materials Planning Inputs

- Materials Process, Role, and Decision Map
- Item Master and Planning-Parameter Control Sheet
- Bill of Material Structure and Accuracy Check
- Demand, Forecast, and Master-Schedule Input Register
- Inventory Balance, Receipt, and Lead-Time Baseline

Day 2: Build the Material Requirements Plan

- Gross-to-Net Requirements Calculation Method
- Time-Phasing, Lead-Time Offset, and Planning-Horizon Grid
- Scheduled Receipt and On-Hand Allocation Worksheet
- Lot-Sizing and Order-Modifier Decision Table
- MRP Planned-Order and Action-Message Register

Day 3: Control Exceptions and Supply Actions

- Planning Exception Classification and Priority Matrix
- Shortage, Expedite, Defer, and Cancel Decision Log
- Requirement Pegging and Demand-Source Trace
- Purchase Requisition and Supplier-Commitment Tracker
- Material Availability and Production-Release Check

Day 4: Control Inventory and Material Movement

- Reorder Point, Safety Stock, and Min-Max Review Sheet
- ABC Segmentation and Control-Frequency Matrix
- Goods Receipt, Inspection, Storage, and Issue Workflow
- Cycle Count, Adjustment, and Stock-Accuracy Register
- Materials KPI and Root-Cause Improvement Board

Day 5: Materials Planning and Control Practice

- Exercise: Validate Item, Bill, Demand, and Inventory Inputs
- Exercise: Calculate Net Requirements and Planned Orders
- Exercise: Resolve Shortage and Rescheduling Messages
- Exercise: Reconcile Receipts, Issues, and Stock Variances
- Capstone Exercise: Build the Materials Planning Control Pack

Practical Exercises

The course uses suggested activities to connect planning data, material requirements, supply actions, and physical stock records.

- Suggested activity: validate an item master, bill of material, demand record, inventory balance, and lead-time set.
- Suggested activity: calculate time-phased net requirements and test lot-size and order-date choices.
- Suggested activity: resolve shortage, expedite, defer, cancel, and reschedule messages with evidence and owners.
- Suggested activity: reconcile purchasing, receipt, storage, issue, and count records before updating control actions.

FAQs

Who is materials requirements planning and control training designed for?

Materials requirements planning and control training suits teams responsible for planning, purchasing, inventory, warehouses, production, maintenance, or material availability, and assumes access to practical item, demand, supply, or stock records.

How does materials requirements planning differ from general inventory management training?

Materials requirements planning converts time-phased demand, bills of material, inventory balances, scheduled receipts, and lead times into planned supply actions, while general inventory management focuses more broadly on stocking policies, movement, accuracy, and service.

What belongs in a Materials Planning Control Pack?

A Materials Planning Control Pack combines the input baseline, parameter sheet, bill check, requirements worksheet, action-message register, exception matrix, supplier tracker, availability check, movement controls, stock-accuracy register, and KPI board.

How are MRP exceptions controlled in materials planning?

MRP exceptions are controlled by classifying the message, tracing its demand source, checking dates and quantities, comparing response options, assigning an owner, recording the decision, and monitoring the resulting supply commitment.

Conclusion

Participants take back a Materials Planning Control Pack. The pack links item and bill data, demand, stock, lead times, planned orders, purchasing, receipts, issues, exceptions, and performance measures. It changes disconnected planning and inventory records into a controlled decision flow with owners, evidence, priorities, and review points.