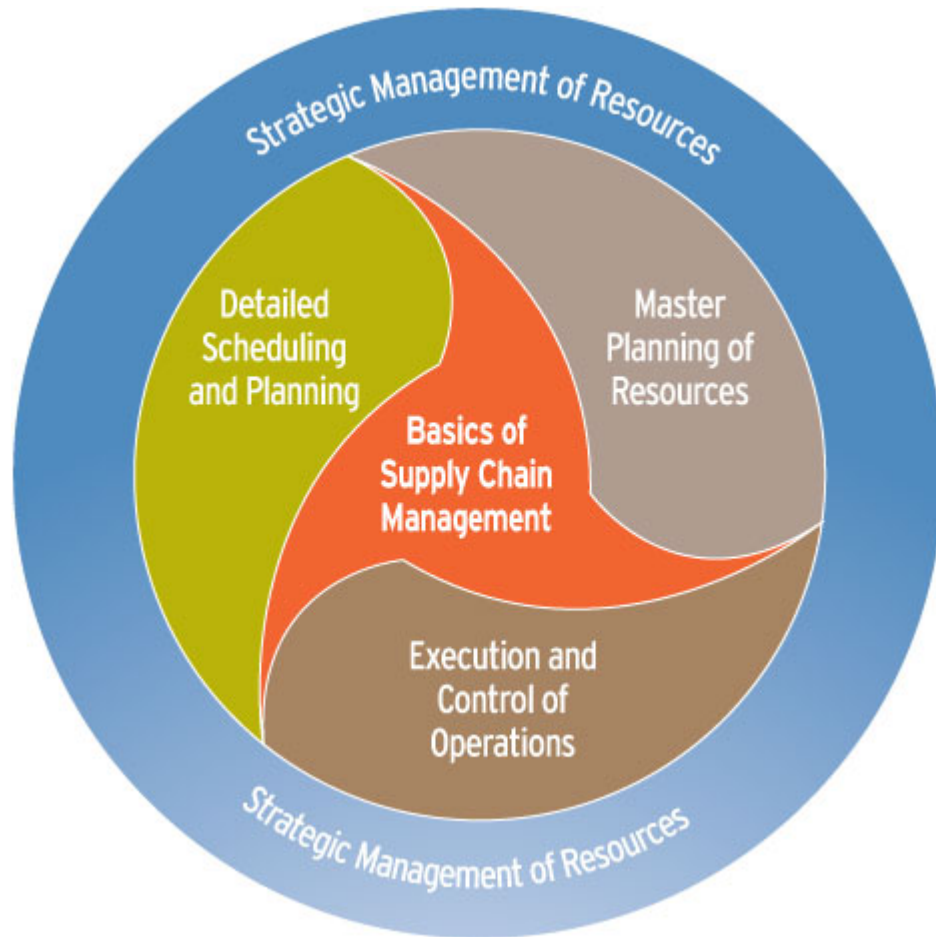


Table of Contents



Instructor Guide

© 2013 APICS Confidential and Proprietary



Table of Contents

Session 1—Inventory Policies

Types and Classifications of Inventory.....	1-9
Major Types of Manufacturing Inventory.....	1-9
Subclassifications of Manufacturing Inventory.....	1-15
Other Manufacturing Inventory.....	1-17
Service Inventory.....	1-21
Aggregate Inventory Policies.....	1-27
Resolving Sales and Operational Conflicts.....	1-27
Inventory Valuation.....	1-31
Inventory Performance Metrics.....	1-39
Item Inventory Policies.....	1-45
Lot Sizing.....	1-45
Safety Stock.....	1-67

Session 2—Inventory Planning

Order Review Methods.....	2-7
Independent Demand.....	2-9
Dependent Demand.....	2-21
Aggregate and Disaggregate Planning.....	2-27
Manufacturing Planning and Control.....	2-27
MRP II for Service.....	2-29
Impact of Lean Production Concepts.....	2-31
Tighter Coupling of Production Activities.....	2-31
Lean Production Tools.....	2-37
Accuracy, Storage, Handling, and Tracking.....	2-43
Inventory Accuracy.....	2-43
Storage and Location of Inventory Items.....	2-59
Handling, Tracking, and Tracing of Inventory.....	2-65

Session 3—Information Used in the Material Planning Process

Information Used in Material Planning.....	3-7
Inventory Data.....	3-7
The Master Production Schedule.....	3-19
Engineering Data.....	3-29
Characteristics of the Material Planning Process.....	3-33
Material Planning in Different Production Environments.....	3-33
MRP Model.....	3-41
Planning Process Parameters.....	3-43
Performance Characteristics.....	3-47

Session 4—MRP Mechanics: The Basics

Introduction.....	4-7
MRP Objectives and Functions.....	4-7
The MRP Grid.....	4-9
Bills of Material.....	4-9
MRP Calculation of Gross and Net Requirements.....	4-13
Gross and Net Requirements and Planned Orders.....	4-13
Sources of Gross Requirements.....	4-13
Summary of MRP Process Logic.....	4-33

Session 5—Using MRP Outputs and Managing Projects

Maintaining the Material Plan.....	5-7
Maintain Order Priorities.....	5-7
Pegging.....	5-13
What-If Analysis and Simulation.....	5-21
Revision of Planning Parameters.....	5-23
Closing the Loop.....	5-33
Integration of Lean with ERP/MRP.....	5-37
Project Management.....	5-39
What is a Project?.....	5-39
Project Phases.....	5-39
Conceptual (Initiation) Phase.....	5-41
Planning Phase.....	5-41
Project Plan Elements.....	5-43
Execution (Implementation) Phase.....	5-57
Monitoring and Control Phase.....	5-61
Closure Phase.....	5-63

Session 6—Detailed Capacity Planning

Influences on Detailed Capacity Planning.....	6-7
Detailed Capacity Planning.....	6-7
Major Influences on Detailed Capacity Planning.....	6-7
Flexibility of Capacity and Scheduling.....	6-9
Planning Material or Capacity First.....	6-11
Manufacturing Environment.....	6-13
Capacity-Related Terminology and Concepts.....	6-19
Information Used in Detailed Capacity Planning.....	6-27
Capacity-Related Data.....	6-27
Load-Related Data and Sources of Load	6-49
Detailed Capacity Planning Techniques.....	6-53
System Design Specifications.....	6-53
Simulation and Modeling Techniques.....	6-67

Session 7—Detailed Capacity Management

Capacity Requirements Planning.....	7-7
Capacity Management.....	7-7
Classical Capacity Requirements Planning.....	7-9
Capacity Management in Process Industries.....	7-39
Process Industries.....	7-39
Key Process Industry Characteristics.....	7-39
Process Flow Scheduling.....	7-41
Other Capacity Management Approaches.....	7-51
Line Balancing in Repetitive Manufacturing.....	7-51
Capacity Management in Service Industries.....	7-55
Performance Measurements.....	7-59
Introduction.....	7-59
Key Performance Measures.....	7-59

Session 8—Establishing Supplier Relationships

Factors Determining Supply Relationships.....	8-7
Mutual Business Value Principles.....	8-7
Make-or-Buy Decision.....	8-9
Purchasing Strategy.....	8-13
Strategic Sourcing.....	8-17
Tactical Buying.....	8-19
Tactical Buying Versus Strategic Sourcing.....	8-19
Financial Viability.....	8-21
Collaborative Relationships.....	8-25
Strategic Alliances.....	8-25
Supplier Partnerships.....	8-29
Supply Alternatives and Techniques.....	8-33
Sole, Single, or Multiple Sourcing.....	8-33
Supplier-Managed Inventories.....	8-39
Cross-Functional Teams.....	8-41
Communication with Suppliers.....	8-43
Strategic Communication.....	8-43
Operational Communication.....	8-45

Session 9—Supplier Partnerships

Product and Process Development.....	9-7
Time-to-Market.....	9-9
Traditional Versus Concurrent Engineering.....	9-11
Supplier Involvement.....	9-11
Purchasing.....	9-13
Purchasing Approaches.....	9-13
Types of Contracts.....	9-15
Supply Chain Acceleration.....	9-19
Total Cost of Ownership.....	9-19
Training.....	9-23
The Role of Engineering.....	9-23
Supplier Relationship Management.....	9-25
Delivery Approaches.....	9-27
Supplier Rating System.....	9-31

Appendix

Progress Check Answer Sheet.....	A-1
Bibliography.....	A-2
Course Evaluation.....	A-3

Index

Index.....	Index-1
-------------------	----------------