

Inventory Management Techniques: Planning, Replenishment, and Activities Control

Learning Objectives

- Understand the Strategic Purpose of Inventory the Processes Used By the Material Management Function to Align with the Internal/External Goals of the Firm
- Learn About the Inventory Management Policies and Procedures That Establish the Reporting and Financial Controls Required By a Firm
- Understand the Role Played By the Materials Manager/Analyst in Meeting and Exceeding Internal Customer Requirements and Expectations
- Learn the Critical Areas of Expertise Required of the Materials Management Function, the Knowledge Base Needed to Proactively Perform, Understand, and Manage the Inventory Cycle/Supply Chain of the Firm, and to Best Respond to Customer Demand
- Learn How to Ascertain and Analyze Factors That Affect the Supplier Risk of Carrying Inventory
- Learn About Inventory Patterns and Models Used By Firms to Predict Demand for Inventory
- Learn About the Strategies to Plan Replenishment of Inventory to Meet the Service Requirements of the Firm and Its Customers
- Understand the Connection Between Inventory and Service Level and How to Calculate the Service Level Required By Your Firm to Meet a Certain Customer Satisfaction Level
- Learn How to Set an Inventory Safety Stock Level That Fits the Strategy of Your Firm
- Learn How to Design Information Systems to Support Your Firm's Inventory Objectives
- Learn About Inventory Performance Factors and How to Measure Them to Best Manage Inventory Performance
- Learn How to Use Techniques to Predict Demand Levels and How to Calculate Optimum Inventory Levels to Meet Demand
- Learn How to Plan and Schedule Replenishment of Inventory to Support Manufacturing/Distribution Operations That Meet the Bottom Line and Enhance Customer Satisfaction
- Learn How to Measure and Report Inventory to the Firm's Internal Customers
- Learn How Inventory Accuracy Is Improved and About Techniques to Efficiently Report Inventory Information
- Learn About Tools to Forecast Demand and Ways to Increase the Material Manager's Ability to Understand the Needs of the Firm's Customers
- Understand the Impact of Inventory Throughput on Supply Chain Efficiency
- Learn About the Different Strategies Used to Manage Bottlenecks and Constraints That Decrease the Amount of Inventory and Lead Time for Materials to the Firm
- Learn How to Reduce the Cost of Inventory Obsolescence
- Learn the Principles of Just-In-Time and Practice with Others on your Team to Improve the Management of Inventory in a Hypothetical Firm

The Strategic Role of Inventory Management

- Understand the Purposes of, and the Processes Used for Inventory Management to Support Operations and Meet Customer Requirements
- Define the Typical Conflicting Goals of Inventory in Companies and Their Impact on Company Success
- Learn the Critical Areas of Expertise Required By the Materials Management Function to Proactively Perform, Understand, and Manage the Inventory Cycle/Supply Chain of a Firm
- Build an Inventory Management Strategy That Is Consistent with the Goals of the Firm
- Learn the Proper Measurements for Inventory and Other Associate Costs Within a Company

Front-End Optimizing of Inventory Levels

- Set the Optimum Inventory Level to Support the Business Plan of the Firm
- Forecast Demands for Inventory
- Calculate Demands from Forecasting Models
- Assess the Impact of “Lean” Systems and Throughput Velocity
- Develop a Safety Stock Level to Support Customer Requirements That Is Consistent with the Customer Service Objectives of the Firm
- Calculate Safety Stock Using the Mean Absolute Deviation

Systems for Inventory Planning and Replenishment

- Understand the Various Types of Replenishment Techniques Used in Different Operational Environments
- Learn About Inventory Behavior and the Effect of Lot Sizes on Average Inventory Level
- Learn About the Relationship Between Lot Size and Lead Time on Inventory Levels
- Learn How to Remedy Surplus/Obsolescent Inventory and the Associated Costs to the Firm and Other Ways to Reduce Inventory Cost
- Complete an Exercise to Calculate Replenishment of Inventory Using the Time-Phased Order Point Method (TCOP)
- Complete an Exercise to Calculate Replenishment, Illustrating the Bill of Materials Setback Logic and the Materials Requirements Planning (MRP) Method

Automating Order Processes

- See the Impact on Cost, Lot Size, and Inventory Levels When Order Costs Are Automated
- Learn About Supplier Managed Inventories
- Discover the Benefits of Consignments and Stocking Agreements
- Study the New Tools of Electronic Commerce
- See How Obsolete Inventory Jobbers Can Help
- See How a Third-Party Logistics Firm Can Help
- Review Online Inventory Access for Customers and Suppliers

Distribution and Service Inventories

- Define Physical Distribution, Logistics Management (Supply Chain), and Demand Management
- Define Enterprise Resources for Integrated Planning of Inventory
- Learn How to Reduce the Cost of Carrying Inventory By Warehouse Layout and Design, Waste Elimination and Inventory Locator System Design
- Define Distribution Resource Planning (DRP) and Learn How to Use DRP Techniques to Replenish Inventory at Distribution Centers
- Complete an Exercise on Calculating DRP Requirements for a Hypothetical Warehouse Location to Meet Business Requirements
- Define the Value and Importance of Service Parts Management

Inventory Accuracy and Audits

- Understand the Prerequisites Necessary for Inventory Control and Accuracy
- Compare the Benefits of Conducting Physical Inventory vs. Cycle Counting
- Learn the Steps to Follow in Getting Started with Cycle Counting to Audit an Inventory on an Ongoing Basis
- Learn About the Procedures to Follow When Doing a Work-in-Process Inventory Audit
- Learn How to Use A-B-C Analysis to Detect, Identify and Control “Typical” Sources of Error in Inventory Reporting
- Establish Meaningful Inventory Accuracy Goals for the Firm to Follow

Just-In-Time and Inventory Process Improvement

- Learn How JIT Systems Fit in Your Company
- Complete a JIT Simulation Exercise
- Learn More Business Strategies for Inventory
- Understand Flowcharting and Inventory Balancing