

CPIM Course Descriptions

BASICS OF SUPPLY CHAIN MANAGEMENT

This course covers the basic concepts in managing the flow of materials through the entire chain from the initial supplier to the end user. This course introduces the basic terminology and techniques involved in the operations management processes. Knowledge of the material in the Basics module is assumed as a prerequisite to the other CPIM modules. This course is also appropriate for individuals seeking an overview of the operations management process.

Business-wide Concepts

- Organization Fundamentals- elements of the supply chain & organization dynamics
- Operating Environments- definitions, choices, and impacts
- Financial Fundamentals- statements, cost categories and analysis
- Manufacturing Resource Planning (MRP II)
- Just-in-Time (JIT)
- Total Quality Management (TQM)
- Impact of Environment on System Design

Demand Planning

- Marketplace Driven- customers, competition and economic and regulatory policy
- Customer Expectations & Definition of Value
- Customer Relationships
- Demand Management

Transformation of Demand into Supply

- Design
- Capacity Management
- Planning (Purposes, inputs and outputs)
- Execution and control
- Performance measurements

Supply

- Inventory
- Purchasing
- Physical Distribution

MASTER PLANNING OF RESOURCES

Master Planning of Resources addresses the activities of demand management, sales and operations planning, and master scheduling.

Demand Management is the function of recognizing all demands for goods and services to support the marketplace. Demand management consists of forecasting, order servicing and distribution planning. Forecasting is the business function that attempts to estimate future demand to enable the planning of company operations. Order servicing encompasses receiving entering and promising orders from customers, distribution centers and interplant operations. Distribution Planning is the planning of resources; order administration, data processing and communications networks to support distribution of products. Sales and operation planning (S&OP) provides management with the ability to strategically direct its business to achieve competitive advantage continuously by integrating customer-focused marketing plans for new and existing products within the management of the supply chain. Master scheduling is the process where the master

CPIM Course Descriptions

schedule is generated, reviewed and adjustments are made to the master production schedule to assure consistency with the production plan.

Demand Management

- General concepts
- Forecasting demand and forecast performance measurement
- Customer relationship management (CRM) and recognizing and processing actual demand
- Relating demand management to the distribution environment

Sales and Operations Planning

- Relating the planning process to the business environment
- Management considerations
- Developing and validating the sales and operations plan (S&OP)
- Developing and validating the production plan

Master Scheduling

- Relating the master scheduling process to the business environment
- Constructing and implementing the master schedule
- Managing the master schedule
- Managing the final assembly schedule (FAS)

DETAILED SCHEDULING & PLANNING

This course is designed to help professionals preparing for the CPIM Detailed Scheduling and Planning examination and for individuals who are seeking to improve their knowledge of the subject. The detailed scheduling and planning processes translate the product level plans and schedules into detailed priority and capacity plans. The course covers processes and techniques for managing inventories, planning material requirements and coverage, capacity planning, maintaining relationships with suppliers and communicating requirements and schedules to suppliers.

Planning Material Requirements to Support the Master Schedule

- Techniques & practices of inventory management
- Information used in the MRP process
- Characteristics of the detailed MRP process
- Mechanics of the detailed MRP process
- Maintaining validity of the material plan
- Interactions with other systems

Planning Operations to Support the Material Plan

- Characteristics and techniques of the detailed capacity planning process
- Information used in the CRP process
- Definitions of capacity
- Sources of load
- Process flows
- Impact of quality on capacity management
- Detailed capacity planning techniques
- Measuring the performance of CRP
- Interactions with other systems

CPIM Course Descriptions

Planning Procurement and External Sources of Supply

- Establishing relationships with suppliers
- Techniques for supplier partnerships
- Implementing the new relationships

EXECUTION & CONTROL OF OPERATIONS

The Execution and Control of Operations course addresses the principles, approaches and techniques needed to schedule, control, measure, and evaluate the effectiveness of production operations. It addresses production operations in a variety of manufacturing environments, and the physical organization of the plant. The course describes the feedback mechanisms regarding how well the schedules are being executed and the information provided to customers regarding order status and to suppliers for future requirements and performance measures.

This course provides valuable information for all individuals who are interested in gaining an understanding of effective management of plant operations.

Prioritizing and Sequencing Work to be Performed

- Interfaces with other manufacturing planning and control processes
- Production environments
- Scheduling production and process operations

Executing the Plans, Implementing Physical Controls and Reporting Results of Activities Performed

- Authorizing and reporting activities in a pull system
- Authorizing and reporting activities in a push system
- Transaction reporting
- Communicating both internal and external customer-supplier information
- Controlling resources
- Executing quality initiatives, eliminating waste, and implementing continuous improvement plans

Evaluating Performance and Providing Feedback

- Evaluating quality management processes
- Monitoring supplier performance
- Evaluating performance of production operations
- Cost management processes

STRATEGIC MANAGEMENT OF RESOURCES

Successful implementation of strategic management of resources (SMR) has the potential to dramatically increase any organization's competitive position. Operations strategy is the foundation on which operations planning control systems should be based. Strategic decision making significantly affects the organization and often requires widespread changes. To contribute to this effort, practitioners must understand how a successful organization develops its strategic goals and how it configures its systems and technologies to address strategic objectives. Effective strategic decision making requires the ability to understand the dynamic interrelationships of concepts and the nonlinear nature of complex systems and the ability to

CPIM Course Descriptions

visualize the long-term implication of decisions. Strategic management of resources addresses aligning resources with business strategies, configuring business processes to support the strategies, and implementing organizational change.

Aligning Resources with the Strategic Plan

- Strategic issues
- Choices affecting operations structure
- Choices affecting operations infrastructure

Configuring and Integrating the Operating Processes to Support the Strategic Plan

- Implementing the strategic plan
- Supply chain management
- Configuring & integrating design and development and cost management processes

Implementing Change

- Project management
- Measuring organizational performance
- Change management