



The Champlain Valley APICS Chapter is a premier professional association for supply chain and operations management and working together with the APICS organization the leading provider of research, education and certification programs that elevate supply chain excellence, innovation and resilience. APICS Certified in Production and Inventory Management (CPIM), sets the industry standard. With over 43,000 members and more than 300 international partners, APICS is transforming the way people do business, drive growth and reach global customers.

The Champlain Valley APICS Chapter has been awarded the Gold Recognition Level for 2015 demonstrating a commitment to furthering educational development, providing educational opportunities and placing the student first. Our education department is headed by Certified CPIM Master Instructor Curt J. Gonsalves who serves on the Board of Directors as the VP of Education and functions as one of our instructors.

The following is an overview of the five classes that are offered by the Champlain Valley APICS Chapter for those participants who are pursuing a CPIM certification. The internationally recognized CPIM (Certification in Production and Inventory Management) requires that 5 credential exams are completed and passed before the certification can be presented. Listed below is an overview of those 5 classes. The classes are offered privately or publically as the needs present themselves. Class offerings are listed on the Champlain Valley APICS website and inquiries can be made for special arrangements by contacting Champlain Valley Apics champlainvalleyapics@gmail.com and/or Curt J. Gonsalves cjgonsalves@live.com

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Basics of Supply Chain Management

This course is one of five (5) that comprise the review for the internationally recognized CPIM (Certification in Production and Inventory Management) credential exams. It can be taken to review for the exam individually, or we can custom this or other related topics for delivery at your company's location.

The course reviews strategies, processes and terminology in Basics of Supply Chain Management. In challenging times such as these, the skills and competencies covered in the course will help manage their critical "every day" responsibilities.

Basics of Supply Chain Management is a 30-hour course. It consists of ten, 3-hour modules ([described below](#)). The program will be delivered at a pace of one module per week to maximize learning reinforcement and provide time for readings, application and small group assignments.

WHO SHOULD ATTEND?

This course is recommended for operations staff seeking CPIM, or those wanting additional skill development. Job titles include: Planner, Planner-Buyer, Senior Planner, Senior Planner-Buyer, Master Scheduler, Manufacturing Manager, Materials Manager, Supply Chain Manager, Planning Manager, Operations Manager, Plant Manager, Warehouse/Logistics Manager, Inventory Manager.

PROGRAM OUTLINE

- **Week 1 – Introduction of Supply Chain Management**

Participants will learn about Supply Chain Management Policies

- Intro to Manufacturing
- Production Environment
- Manufacturing Supply Chain
- Manufacturing Planning and Control
- From MRP to ERP

- **Week 2 – Demand Management**

Participants will learn about demand management techniques and how to manage it.

- Demand Management Processes
- Demand Characteristics
- Forecasting/Techniques

- **Week 3 – Master Planning**

Participants will learn about the Master Planning Process and interactions

- Master Planning
- Sales & Operations Production Planning
- The Master Production Schedule
- Master Scheduling and Sales

- **Week 4 – Material Requirements Planning**

Participants will learn about the basics of MRP.



- Materials Planning Environment
- Bills of Material
- MRP Planning Logic

• **Week 5 – Capacity Management and Production Activity Control**

Participants will learn the importance of Capacity Management and Production Activity Control.

- Capacity Management
- Capacity Requirements Planning
- Production Activity Control
- Scheduling
- Implementation

• **Week 6 – Inventory Management**

Participants will learn the basics of inventory management

- Intro to Inventory
- Inventory Management
- Inventory Costs
- Ordering Costs
- Stock out Costs
- Capacity Related Costs

• **Week 7 – Item Inventory Management**

Participants will learn about ordering, systems and ABC methods.

- Order Quantities
- Independent Demand Ordering Systems
- ABC Inventory Control
- Auditing Inventory Records

• **Week 8 - Purchasing and Physical Distribution**

Participants will learn about factors involved in purchasing and physical distribution.

- Purchasing
- Purchasing Activities and Participants
- Physical Distribution
- Distribution Inventory
- Transportation
- Warehousing

• **Week 9 - Lean/JIT and Quality Systems**

Participants will learn about Lean/JIT and Quality Systems.

- Productivity and Quality Systems
- Focus on the System
- Lean/Just In Time
- Quality Management Systems

• **Week 10 - Theory of Constraints**



Participants will learn about the Theory of Constraints.

- Basic Principles
- Types of Constraints
- Problem Solving Tools
- General Applications

PROGRAM BENEFITS

- Understanding Manufacturing Planning and Control
- Discussion on resolving Sales and Operational Planning conflicts
- Understanding on how to manage demand
- Forecasting
- Master Planning
- Master Production Schedule
- Capacity Requirements Planning
- Material Requirements Planning Objectives and Functions
- Understanding Bills of Material
- Integration of Lean with MRP
- Major Influences on Capacity Requirements Planning
- Establishing Supplier Relationships and Partnerships
- Inventory Management Principles
- Quality Management Systems
- Theory of Constrains

Master Planning of Resources

This course is one of five (5) that comprise the review for the internationally recognized CPIM (Certification in Production and Inventory Management) credential exams. It can be taken to review for the exam individually, or we can custom this or other related topics for delivery at your company's location.

The course reviews strategies, processes and terminology in Master Planning of Resources. In challenging times such as these, the skills and competencies covered in the course will help manage their critical "every day" responsibilities.

Master Planning of Resources is a 24-hour course. It consists of eight, 3-hour modules ([described below](#)). The program will be delivered at a pace of one module per week to maximize learning reinforcement and provide time for readings, application and small group assignments.

WHO SHOULD ATTEND?

This course is recommended for operations staff seeking CPIM, or those wanting additional skill development. Job titles include: Planner, Planner-Buyer, Senior Planner, Senior Planner-Buyer, Master Scheduler, Manufacturing Manager, Materials Manager, Supply Chain Manager, Planning Manager, Operations Manager, Plant Manager, Warehouse/Logistics Manager, Inventory Manager.

PROGRAM OUTLINE

- **Week 1 – Business Planning Process**

Participants will learn about Business Planning Process

- Demand Management
- Sales and Operation Planning
- Master Planning
- Planning Process
- The Business Plan

- **Week 2 – Forecasting Demand**

Participants will learn about forecasting.

- What is a forecast?
- Types of Demand and Forces that Influence it
- Seasonality
- Data Sources
- Focus Forecasting
- Planning Horizons and Time Periods

- **Week 3 – Demand Management and Customer Service**

Participants will learn about information demand management and customer service

- Replacing Forecast with Knowledge
- Customer Relationship Management
- Supply Chain Order Management
- Demand Management Activities



- **Week 4 – Distribution Planning**

Participants will learn about the basics of distribution planning.

- DRP Planning and Objectives
- Distribution Site Selection
- Distribution Planning Systems
- Lean/JIT Considerations for Distributions

- **Week 5 – Sales and Operation Planning Process**

Participants will learn about the Sales and Operation Planning Process

- Monthly Sales and Operation Planning Process
- Benefits and Considerations of Sales and Operations Planning
- Production Methods
- Make to Stock and Make to Order
- Sales Plan
- Production Plan
- Inventory Plan
- What is a Resource?

- **Week 6 – The Master Scheduling Process**

Participants will learn the basics of the Master Scheduling Process

- Sales and Operation Planning and the Master Schedule
- Inputs to the Master Schedule
- Master Scheduling Grid
- Relating the Master Scheduling Process to the Business Environment
- Common Parts of Bill of Material
- Accuracy of Records
- Master Scheduler Responsibilities

- **Week 7 – Managing the Master Scheduling Process**

Participants will learn what is involved in managing the Master Scheduling Process.

- Data Sources of Master Scheduling
- Engineering Changes
- Managing Change
- Trade Offs in Master Schedule
- Revised Master Schedule and Rough Cut Capacity Planning

- **Week 8 - Measuring Performance and Validating the Plan**

Participants will learn about measuring performance and validating the plan.

- Measuring the Business
- Customer Service
- Customer Service Measurements
- Master Scheduling Performance Measurements
- Master Scheduling Management Issues



PROGRAM BENEFITS

- Understanding the Sales and Operation Process
- Discussion on resolving Sales and Operational Planning conflicts
- Understanding the Master Scheduling Process
- Benefits of Sales and Operation Planning and Master Scheduling
- Make to Stock vs. Make to Order
- Inputs and Outputs of Master Scheduling
- Understanding the Business Plan
- Understanding how to manage demand
- Rough Cut Capacity Planning
- Making the Master Plan Realistic

Detailed Scheduling and Planning

This course is one of five (5) that comprise the review for the internationally recognized CPIM (Certification in Production and Inventory Management) credential exams. It can be taken to review for the exam individually, or we can custom this or other related topics for delivery at your company's location.

The course reviews strategies, processes and terminology in Detailed Scheduling and Planning. In challenging times such as these, the skills and competencies covered in the course will help manage their critical "every day" responsibilities.

Detailed Scheduling and Planning is a 27-hour course. It consists of nine 3-hour modules ([described below](#)). The program will be delivered at a pace of one module per week to maximize learning reinforcement and provide time for readings, application and small group assignments.

WHO SHOULD ATTEND?

This course is recommended for operations staff seeking CPIM, or those wanting additional skill development. Job titles include: Planner, Planner-Buyer, Senior Planner, Senior Planner-Buyer, Master Scheduler, Manufacturing Manager, Materials Manager, Supply Chain Manager, Planning Manager, Operations Manager, Plant Manager, Warehouse/Logistics Manager, Inventory Manager.

PROGRAM OUTLINE

- **Week 1 - Inventory Policies**

Participants will learn about Inventory Policies

- Types of Inventory
- Resolving Sales and Operational Conflicts
- Inventory Performance Metrics
- Lot Sizing and Safety Stock

- **Week 2 - Inventory Planning**

Participants will learn about inventory planning and the impact of Lean Production Concepts.

- Types of Demand
- Manufacturing Planning and Control
- Lean Production Tools
- Inventory Accuracy

- **Week 3 - Information Used in the Material Planning Process**

Participants will learn about information used in the Material Planning Process

- Inventory Data
- Master Production Schedule
- Material Planning in Different Production Environments
- Performance Characteristics

- **Week 4 - MRP Mechanics: The Basics**

Participants will learn about the basics of MRP.



- MRP Objectives and Functions
- Bills of Material
- Gross and Net Requirements and Planned Orders

- **Week 5 - Using MRP Outputs and Managing Projects**

Participants will learn the importance of Maintaining the Material Plan and Project Management.

- Maintaining Order Priorities
- What If Analysis and Simulation
- Integration of Lean with MRP
- Project Management

- **Week 6 - Detailed Capacity Planning**

Participants will learn the basics of detailed capacity planning

- Major Influences on Detailed Capacity Planning
- Flexibility of Capacity and Scheduling
- Planning Material or Capacity First
- Capacity-Related Terminology and Concepts
- Sources of Load

- **Week 7 - Detailed Capacity Management**

Participants will learn about detailed capacity management and differing industry types.

- Capacity Management in Process Industries
- Capacity Management in Repetitive Industries
- Capacity Management in Service Industries
- Performance Measures

- **Week 8 - Establishing Supplier Relationships**

Participants will learn about factors determining supply relationships.

- Make or Buy Decisions
- Purchasing Strategy
- Strategic Sourcing
- Tactical Buying
- Collaborative Relationships
- Sole, Single or Multiple Sourcing
- Managed Inventories

- **Week 9 - Supplier Partnerships and Review**

Participants will learn about Product and Process Developments, Purchasing and Acceleration of the Supply Chain

- Time to Market
- Supplier Involvement
- Types of Contracts
- Total Cost of Ownership
- Supplier Relationship Management



○ Supplier Rating

PROGRAM BENEFITS

- Understanding Inventory Policies and Metrics
- Discussion on resolving Sales and Operational Planning conflicts
- Manufacturing Planning and Control
- Impact of Lean Production Concepts
- Accuracy, Handling and Storage of Inventory
- Information Used in the Material Planning Process
- Material Planning in Different Production Environments
- Performance Characteristics
- Material Requirements Planning Objectives and Functions
- Understanding Bills of Material
- Integration of Lean with MRP
- Major Influences on Capacity Requirements Planning
- Establishing Supplier Relationships and Partnerships

Execution and Control of Operations

This course is one of five (5) that comprise the review for the internationally recognized CPIM (Certification in Production and Inventory Management) credential exams. It can be taken to review for the exam individually, or we can custom this or other related topics for delivery at your company's location.

The course reviews strategies, processes and terminology in Execution and Control of Operations. In challenging times such as these, the skills and competencies covered in the course will help manage their critical "every day" responsibilities.

Execution and Control of Operations is a 24-hour course. It consists of eight 3-hour modules ([described below](#)). The program will be delivered at a pace of one module per week to maximize learning reinforcement and provide time for readings, application and small group assignments.

WHO SHOULD ATTEND?

This course is recommended for operations staff seeking CPIM, or those wanting additional skill development. Job titles include: Planner, Planner-Buyer, Senior Planner, Senior Planner-Buyer, Master Scheduler, Manufacturing Manager, Materials Manager, Supply Chain Manager, Planning Manager, Operations Manager, Plant Manager, Warehouse/Logistics Manager, Inventory Manager.

PROGRAM OUTLINE

- **Week 1 - Execution of Operations**

Participants will learn about Execution and Operations

- Manufacturing Planning
- Defining Execution and Control Systems
- Inventory Performance Metrics
- Lot Sizing and Safety Stock

- **Week 2 - Scheduling and Authorization**

Participants will learn about Scheduling.

- MRP Based Scheduling
- Theory of Constraints Scheduling
- Lean/JIT Scheduling

- **Week 3 - Control of Production**

Participants will learn about Controlling Production.

- Scope and Principles of Operations Control
- Production Activity Control: MRP-Based
- Production Activity Control: Lean/JIT Based
- Inventory Management Issues

- **Week 4 - Control of Costs and Quality**

Participants will learn about the Control of Costs and Quality.

- Cost Control



- Cost of Quality

- **Week 5 - Management and Communication**

Participants will learn the importance of Management and Communication.

- Approaches to Management
- Worker Development
- Types of Participation/Involvement

- **Week 6 - Quality and Continuous Improvement**

Participants will learn about Quality and Continuous Improvement.

- Seven Basic Quality Tools
- PDCA Cycle
- A3 Problem Solving

- **Week 7 - Design Tradeoffs**

Participants will learn about Design Tradeoffs.

- Design Principles
- Design Techniques

- **Week 8 - Case Studies and Review Activities**

Participants will review case studies and review.

- Case Studies
- Review Activity

PROGRAM BENEFITS

- Understanding Execution of Operations
- Discussion on Manufacturing Planning
- Defining Execution and Control Systems (Process/Layout/Batch vs Flow/Pull/Lean)
- Review Types of Scheduling
- Discussion on Production Activity Control (MRP and Lean)
- Inventory Management Issues
- Discussion about Management and Worker Development
- Quality and Continuous Improvement
- Design Tradeoffs

Strategic Management of Resources

This course is one of five (5) that comprise the review for the internationally recognized CPIM (Certification in Production and Inventory Management) credential exams. This can be taken to review for the course exam either individually, or we can custom this or other related topics for delivery at your company's location.

This course provides information on how to Strategic Management of Resources can make a positive difference to companies. Important resources must be managed to execute the operational strategy and objectives and achieve success.

Strategic Management of Resources is a 24-hour course. It consists of eight 3-hour modules (described below). The program will be delivered at a pace of one chapter per week to maximize learning reinforcement and provide time for readings, application and small group assignments.

WHO SHOULD ATTEND?

This course is recommended for Operations staff or those wanting additional information. Some job titles are: Planner, Planner-Buyer, Senior Planner, Senior Planner-Buyer, Master Scheduler, Manufacturing Manager, Materials Manager, Supply Chain Manager, Planning Manager, Operations Manager, Warehouse/Logistics Manager, Inventory Manager.

PROGRAM OUTLINE

• Week 1 – Developing the Business Strategy

Participants will learn the importance of the business strategy and forces that can affect it.

- External Environment: Seven Key Issues
- Competitive Force Analysis
- Market positioning
- Access the current strategy
- Determine strengths, weaknesses, opportunities and threats
- Manage strategic issues
- Types of Strategies

• Week 2 – Global Environment and Sustainability

Participants will learn about the market lifecycle and sustainability

- Formative strategy issues
- Strategic Options for Market Entry
- Techniques for gaining competitive advantage
- Principles of Sustainability

• Week 3 – Operations Strategy

Participants will learn about operations strategy, objectives and performance measurement

- Operations Strategy and Objectives
- Design Process Objectives
- Structure Choices
- Performance Measurement Systems



• **Week 4 – Operations Strategy Choices and Financial Measurement**

Participants will learn the role of performance objectives, material planning and scheduling and financial measurement

- Business Strategy
- Capacity and Organizational Structure Issues
- Cash Flow Statements
- Financial Statement Analysis

• **Week 5 – Aligning Operations with Supply Chain Partners**

Participants will learn about supply chain management, capacity planning, and managing supply chain relationships

- Purpose of Supply Chain Relationships
- Supply Networks
- Long Term Partnerships
- Vertical Integration

• **Week 6 – Infrastructure Systems**

Participants will learn about management, total approach to quality, ERP systems and facilities

- Management Measurement processes
- Total approach to quality
- Quality Measures
- ERP systems
- Facilities

• **Week 7 – Change Management**

Participants will learn about the change processes, role of leadership and management, risk assessment/mitigation and project management for change

- Reasons for implementing change
- Strategies for change
- How to lead change
- Assess potential failures and preventing them
- What is a project

• **Week 8-Case Studies and Review**

PROGRAM BENEFITS

- Understand what a business strategy is and how it is important.
- Discuss Industries Dominant Economic Features
- Determine the Enterprises Key Success Factors
- Access the Current Strategy for Strengths, Weaknesses, Opportunities and Threats
- Discuss the principles of sustainability
- Developing an Operational Strategy and Objectives
- Performance Measurement Systems
- Operations Strategy Choices and Financial Measurements



- Supply Chain Management
- Managing Supply Chain Relationships
- Outsourcing
- ERP Systems
- Change Management