

# CFME Course Catalog

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expansion and/or modification

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 **CFME**  
CENTER FOR MANUFACTURING EDUCATION

Dave Viale, Founder & CEO of CFME  
APICS Master Instructor CSCP  
APICS Master Instructor CPIM  
CPA, CPIM, CSCP

Our business began as “Viale and Associates” in 1979, and was incorporated as CFME, (The Center for Manufacturing Education) in 1981.

Dave Viale is an educator, consultant, and writer. He is the founder and president of CFME, an International Education, Training and Consulting Company.

He brings a diverse work experience to CFME, including a combined more than 20 years’ work experience at Arthur Andersen, Fairchild Semiconductor, and Hewlett Packard, as well as several leadership positions. He was a practicing CPA, and also taught for several universities and colleges. Capitalizing on this varied background, Dave brings a cross-functional perspective to his consulting, classes, speeches, seminars, and key executive presentations, which he delivers across the U.S., Canada, Europe, and the Far East. During the last ten years, Dave has specialized in Supply Chain Management and Contract Manufacturing.

He has also given the APICS, CPIM and CSCP Certification Classes and Supply Chain workshops for many years. He was the co-creator of the Program Management Workshop that became the standard for any of the major contract manufacturing companies.

This global experience, when combined with his educational training, brings a unique blend of theory, practicability, and financial impact to his presentations, consulting engagements and his books. Dave is the author of the BEST-SELLING APICS Books, *Basics of Manufacturing*, *Basics of Inventory Management*, and *Finance for All Functions*.

His most recent addition, The Law of 64/4 (An 80/20 of an 80/20)<sup>®</sup> and trade business process is included in the workshops: *Finance for All Functions*; *Leader Development*; *Lean All The Enterprise*; and *Manufacturing 101 – A Prerequisite to Successful ERP Implementation*.

Building on his TQC, JIT experiences, Dave has expanded CFME’s product offering with the “Lean All The Enterprise Workshop Series and Facilitation & Reinforcement Package”. Most classes, workshops and seminars on the Lean Enterprise/Six Sigma deal primarily with the manufacturing area, and to a lesser extent, the customer and the supplier functions (loops).

This customer customized series is different. While it can still deal with the manufacturing function, it has been designed with an equal emphasis on all the other functions, and can be applied across all entities. CFME is leveraging off these successes by expanding its workshop offerings into the Health Care, Banking and Environmental areas.

Over the past three years, Dave has been engaged by several companies to develop an Inventory Strategy/Inventory Model including the tools and tactics needed to implement it successfully.



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# APICS Certified in Production & Inventory Management (CPIM)



# APICS Certified in Production and Inventory Management (CPIM) Modules

## *Basics of Supply Chain Management*

The basic concepts in managing the complete flow of materials in a supply chain from suppliers to customers are covered in the Basics Module. This covers manufacturing, distribution, service, and retail industries. This includes the fundamental relationships in the design, planning, execution, monitoring, and control that occur. Knowledge of the material in this module is assumed as a prerequisite for the other APICS CPIM modules, which cover similar topics in much greater depth.

Topics include:

- Understanding basic business-wide concepts, including understanding various supply chain environments
- Managing demand, including markets and customer expectations
- Designing products, processes and information systems
- Understanding supply issues including inventory costs, functions, and metrics

## *Master Planning of Resources*

Explore and be able to apply the principles of demand management, sales and operations planning, master scheduling, and distribution planning, and to identify conditions that require action. This module evaluates knowledge of both supply and demand planning for mid- to long-term independent demand.

Topics include:

- Recognizing all demands for goods and services to support the marketplace
- Bringing together all the plans for the business
- Disaggregating the production plan into an executable schedule
- Planning the distribution network and replenishment

## *Detailed Scheduling and Planning*

Acquire a working knowledge of the tools and techniques for planning of inventory, including planning techniques such as MRP, CRP, Lean, TOC, and projects. Understand the effect of using each technique, know standard measurements for inventory, materials, capacity and supplier performance, and recognize when to escalate issues.

Topics include:

- Managing inventory, planning material requirements, planning capacity requirements, and procurement and supplier planning
- Recognizing the importance of supply chain management and deploying supply chain strategies related to scheduling, planning, and sourcing
- Translating product-level plans and schedules generated at the master planning level into requirements that can be procured or produced
- Bridging the master planning area with the execution and control function
- Planning, scheduling, resource allocation, and implementing projects that are used to manage the supply of products and services

### ***Execution and Control of Operations***

Learn to translate plans into operational activities and define and apply techniques in the operations field.

Topics include:

- Comparing actual output to plans and taking appropriate corrective actions
- Communicating ideas in a group setting and instructing others in tasks
- Creating operational solutions in the face of competing resources
- Explaining the release of work and reporting performance through data collection
- Understanding the execution of quality initiatives and continuous improvement plans
- Evaluating trade-offs and participating in design decisions

### ***Strategic Management of Resources***

Move your learning to the next level through the SMR module that includes higher-level thinking or strategic planning and implementation of operations. This includes an understanding of how market requirements drive the resources and processes of an organization.

Topics include:

- Understanding concepts that require a combination of elements and higher thinking within the entire CPIM body of knowledge
- Knowing the relationship of existing and emerging processes and technologies to operations and supply chain functions
- Understanding various business environments
- Knowing how business strategies are developed and how operation strategies are implemented





# APICS CSCP Learning System



# APICS CSCP Learning System

The 2012 APICS CSCP (Certified Supply Chain Professional) Learning System is a comprehensive professional development and exam preparation program. It consists of three print modules and web-based study tools that reflect the entire *APICS CSCP Exam Content Manual (ECM)* and provides you with a broad view of global end-to-end supply chain management.

The 2012 APICS CSCP Learning System is enhanced to support the recent structural and content changes to the APICS CSCP exam. Each module will further empower you with an understanding of best practices, techniques and technologies necessary to maximize your organization's efficiency and impact the bottom line.

## ***Module 1***

### **APICS Fundamentals of Supply Chain Management**

- Broad concepts of supply chain management, including primary processes, objectives, integration methods and benefits
- Alignment of supply chain and business strategies
- Key considerations for supply chain design and continuous improvement
- Key measures for planning and controlling inventories
- Fundamentals of logistics in supply chain management
- Identifying and managing market segments
- Demand forecasting and management techniques
- Keys to effective Customer Relationship Management (CRM)
- Core concepts of supply management

## ***Module 2***

### **APICS Supply Chain Strategy, Design, and Compliance**

- Sustainability practices in design and operation of a supply chain
- Risk, its sources, impacts, and mitigation methods
- Globally dispersed supply and demand, and the impact of free trade zones and trading blocks
- Globalization effects on inbound and outbound logistics
- Measurement of, and efficiency and responsiveness, in the supply chain
- Technologies for design, data, operations and communications in supply chain management
- Factors influencing demand, including design, marketing, selling, and matching customer orders
- Core concepts of CRM, including strategies, technologies, and key implementation

challenges

- Fundamentals of Supplier Relationship Management (SRM), including strategies, improved management of sources, relevant technologies and measurement
- Inventory planning and control methods

### ***Module 3***

#### **APICS Implementation and Operations**

- Supply chain dynamics and the balance of responsiveness and efficiency
- Managing supply from internal and external sources
- Implementation of demand plans, including prioritization and fulfillment, and capturing and communicating point-of-sale data
- Tools and techniques to support continuous improvement strategies



# Lean All The Enterprise Not Just Manufacturing



# Lean All The Enterprise – Not Just Manufacturing

This workshop places emphasis on addressing waste in Indirect Labor activity which is the second largest expense on the Income Statement. There will be an in-depth presentation of the impact of Lean Projects on the Balance Sheet, Income Statement and Cash Flow. All organizations will be addressed including Supply Chain, Planning, Scheduling, Sales, Marketing, R&D, Finance, IT and HR. This will be accomplished by teaching people how to Value Stream Map, develop an A3, and apply various Lean/Six Sigma Tools. People will learn how to eliminate waste and then financially quantify the improvements in productivity.

## LIST OF TOPICS

### CHAPTER I Introduction and Overview

### CHAPTER II Driving the Lean Journey

- Corporate Objectives for Lean
- Establishing the Executive Steering Committee
- Business Assessment (SWOT Analysis)
- The Use and Design of the A3s – Strategic, Functional and Individual
- Vision Map
- Spider Chart

### CHAPTER III Value Stream Mapping Current State

- What is a Value Stream Map?
- Tie into A3 Objectives of how does Value Stream Mapping
- Steps to Construct Value Stream Maps
- Finding the Initial Waste (Kaizens with a Purpose and Financial Impact)
- Identify Potential Benefits (Financial and Operational)
- Calculating Takt, Production and Cycle Times

## **CHAPTER IV The Analytical Tools Needed to Complete the A3**

- Scientific Thinking PDCA through the Lean Process
- Pareto, Fishbone, 5Whys, Checklists, Force Field
- The Law of 64/4 (an 80/20 of an 80/20)®
- Kaizens with a Purpose/Financial Justification
- Data Collection and Presentation
- Root Causes Analysis
- Statistical Process Control (SPC) (Sporadic vs. Chronic)
- Control Charts (X-bar Chart, R Chart)
- Variation (CP, CPK)

## **CHAPTER V Waste Reduction – The Deadly Waste**

- Value-Added, Non-Value-Added, Non-Value-Added, but Required
- The Deadly Wastes (MUDA, MURA, MURI)
- Waste Reduction Programs
- Increase Productivity, Morale, Profitability
- Bottom Line – Increasing the Individual's Value
- Beginning the Process via the Daily Logs and Checklists
- Working yourself out of your current job and into a new job

## **CHAPTER VI Measuring and Showing Results on the Balance Sheet, Income Statement and Cash Flow from the Lean Projects**

- Dispelling the “Myth of Lean Accounting” (GAAP)
- Allocation of Factory Overhead and Activity-Based Costing
- Financially Quantifying Lean Project Improvement (IDL)
- Key Financial Ratios, Inventory Turns, ROI, ROA
- The Basic Accounting/Operational Formula
- The Financial Cost of Forecast Error, On Time Delivery and Inventory
- Improving Cash Flow through Lean Efforts (DSO, DSI, DPO)
- Improve Cash Flow through Waste Reduction

## **CHAPTER VII Variation – Measuring and Reducing Variation (MURA)**

- What is Variation and Where Does It Come From (MURA)
- Amplification Impact and How to Fix Them
- Overburdening (MURI)
- Tools to Buffer Variations, Standard Deviation, etc.

## **CHAPTER VIII Decreasing the (Amplification of) Variation Thus Increasing Predictability, Visibility, Velocity**

- Describe the effect of the amplification in terms of the creation of transactions
- Show the Transaction Amplification
- Create an Audit Trail that documents this amplification
- Through the use of Lean Tools, identify root causes and fix them
- Then, through a 6S Audit Program, sustain the results
- Leaning the entire Supply Chain
- Financial Cost of IT Transactions on Cash flow & Lean Time across the Supply Chain

## **CHAPTER IX The Lean Business Plan, Strategies and the Leadership Requirements**

- Defining Lean Leadership
- HOSCHIN Planning/Catch Ball
- Executive – Information Sharing (Yokota) A3 Thinking
- Finalizing the Lean Project Plan – Feedback and Corrective Action
- Moving to Other Functions, Sales, R&D, Marketing
- Seek Perfection – CPI
- Presenting Data – Executive A3 Presentation
- Working yourself out of a job...Then, what happens?
- Project Management
- DMAIC – 6 Sigma, Green Belt Project

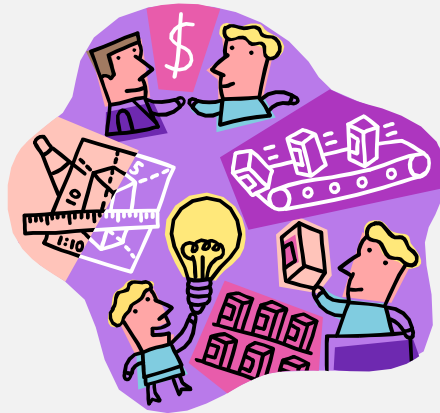


## CHAPTER X     **Sustaining the Change**

- What is the 6S Process (Safety the 6<sup>th</sup> S)?
- The Importance and Application of Sort, Straighten, Shine, Standardize, Visual Workplace
- Visual Workplace
- Standard Work – Waste = Increased Productivity and Creativity
- 6S Audit Checklist and Audit Program



# Finance for all Functions



# Finance for All Functions

## (Lean Accounting – A Supply Chain Cost Reduction Approach)

One of the areas frequently overlooked in the preparation of professionals working for manufacturing companies is their knowledge of business finance. While it is not necessary to master a level of detail encompassing the “accounting rules of debit and credit”, it is crucial to develop an understanding of the financial ramifications and decisions made within the entire supply chain, including the manufacturing environment—not only the bottom line, but the top line as well.

Employees today are often required to provide, collect, and evaluate financial data. Those in decision-making positions are expected to participate in planning and maintenance of established budgets and cost control. Promotions and raises are often assigned to individuals based on their participation in achieving departmental goals such as sales quotas, cost containment, and productivity improvements.

A basic understanding of the financial planning/implementation process and your role within that process will help you obtain such goals. It is the aim of this book to equip you with a financial knowledge necessary for achieving the level of success that you desire in your career.

## LIST OF TOPICS

### CHAPTER I      **BASICS OF FINANCE – PART 1**

- Financial Statements
- Financial & Manufacturing Information

### CHAPTER II      **BASICS OF FINANCE – PART 2**

- Cost Management
- Examining Supplier’s Financials
- Cost of Doing Business Internationally
- Cost Analysis

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### CHAPTER III      **COST REDUCTION ACROSS THE SUPPLY CHAIN**

- Cash to Cash
- Total Supply Chain Management

- Cost of Change
- Understanding the True Cost of Offshoring
- Additional Information
- Summary Thoughts about Outsourcing & Offshoring

## **CHAPTER IV    DEVELOPING AN INVENTORY STRATEGY**

- Session Objectives
- Connecting the Supply Chain
- Formulate Your Inventory Strategy
- Rules/Policies
- Developing an Inventory Strategy
- Standard Deviation
- Mean Absolute Deviation (MAD)
- Inventory Objectives
- Questions

## **CHAPTER V    VALUING INTANGIBLE ASSETS**

- How to Calculate the Value of Intangible Assets
- Individual Intangible Assets
- Types of Intangible Assets on the Balance Sheet
- Other Intangibles
- Financials
- Intangible Assets

## **CHAPTER VI    FINANCIAL COST OF IT TRANSACTIONS ON CASH FLOW AND LEAD TIME ACROSS THE SUPPLY CHAIN**

- Information Accelerator
- Variation
- Review of IT Transactions
- Role of IT in the Supply Chain
- Summary of What we are Trying to do
- Variation Exercise
- Standard Deviation
- Achieving Demand Stability
- Buffering with Labor



# Essentials of Leader Development For Lean Enterprises



# Essentials of Leader Development for Lean Enterprises

This Leader Development Workshop helps to develop the qualities of good leadership that are essential for career and organizational success, especially in this ever changing world of Contract Manufacturing.

Develop effective leadership skills training in areas like: team building, strategic planning, decision making and more. Company Executives will share and teach valuable insights, proven to work in a “real world” environment of Contract Manufacturing. How to meet and respond to ever increasing customer demands will also be included in group. Developing effective leadership skills is essential to be able and ready to meet the difficult challenges of today’s economy and business world.

## LIST OF TOPICS

### CHAPTER I      **Leaders – Staying Gainfully Employed**

- Anyone can be a Leader
- Everyone Leads Something (people, processes, systems)
- Definition
- Importance of Role Models
- Leaders vs. Power Brokers
- The Difference between Titles and Leaders
- Exercise 1
- Power
- What a Leader is Not
- Born vs. Developed
- Intuitive Thinking
- Positive Relationships/Characteristics of a Leader/Change
- Exercises
- Workshop Topics



## **CHAPTER II      Leaders – There Must be a Plan to Change**

- Business Plan/Individual Plan
- Core Values
- Vision
- Mission
- Roles and Responsibilities
- Rules
- Change/Change Management

## **CHAPTER III     Leaders – Focusing on Results**

- Staying Focused
- Primary Colors
- Corporate Objectives
- Motivating People
- Focusing on Results
- Rules, Graphs and Charts

## **CHAPTER IV     Leaders – Achieving Results**

- Corporate Objectives
- Customer Satisfaction
- Business Planning
- Skills/Results/Life Cycle
- Tangible/Intangible Assets
- Sales/Sales Process/Presentations
- Consulting
- Knowledge

## **CHAPTER V      Leaders – Ongoing Development**

- Capacity/Capability
- Characteristics/Process
- Definition of Competency
- People Learn Differently
- Capacity/Capability
- Capacity Planning
- You as a Role Model
- Basic Tools/Breakthrough Thinking/Change
- Completed Staff Work

## CHAPTER VI Leaders – Future Organizations

- Consulting
- Information
- Organizations of the Future

# Handling Conflict And Confrontation



# Handling Conflict & Confrontation

Conflict and confrontation can be an incredibly damaging force, costing people their jobs and personal relationships. However, since everyone experiences these two things, it is important to have constructive approaches to manage it effectively. The class/workshop will help teach participants how to identify their triggers and what to do when they experience conflict and confrontation. Controlling and limiting conflict is important in every aspect of one's life. Without this control you are putting limits on what you can accomplish in your personal and professional life. Following is a more detailed outline of this workshop.

## LIST OF TOPICS

### **CHAPTER I      Understanding Conflict – And Why It Makes Us So Uncomfortable**

- How fear of conflict can hold you back personally and professionally
- Recognizing why avoidance, power play, pouting, and manipulation never resolve conflict
- The positive side of conflict: How you can benefit and grow from conflict

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### **CHAPTER II      Conflict-Resolution Skills Guaranteed to Help You Work Through Disagreements**

- Never place blame, and other big don'ts to avoid during conflict
- Critical steps that lead to agreement

### **CHAPTER III Mastering Calm Confrontation: A Professional Approach That Will Improve Your Results Immediately**

- Confrontation 101: How-to for confronting someone in a calm, professional manner
- If anger or tears threaten: Proven techniques for neutralizing your emotions
- How to respond when others try to drag you into an argument you don't want to be a part of
- Recognizing when it's better not to confront

### **CHAPTER IV Effectively Managing Your Anger – And That of Others**

- Basic must-know facts about anger
- How to get your point across without blowing your top
- Keys to minimizing antagonistic behavior
- Tactics for defusing an angry person
- Crisis management: What to do when someone's anger threatens to turn into violence

### **CHAPTER V Handling Conflict and Confrontation in Specific Tough Situations**

- Techniques for dealing effectively with backstabbing, ridicule and malicious gossip
- What to do when you're challenged or put down in front of others
- Tips for handling criticism without getting defensive or upset
- Power tips for handling various negative behaviors of difficult people
- "Kid-glove rules" for handling confrontations with customers or clients

## **CHAPTER VI    Effective Communication: Your Key to Minimizing Conflict and Resolving Disagreements**

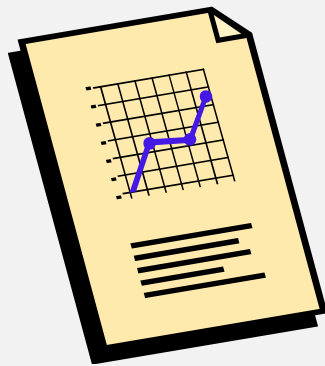
- Essential communication skills for resolving disagreements
- Conflict-escalating words that you should never use during confrontation
- End mixed messages with clear communication
- Assertive responses that can head off conflict before it starts
- Active listening skills that help you hear what's really being said – and avoid misunderstandings

## **CHAPTER VII    Taking Care of No. 1 When the Stress of Conflict Takes its Toll**

- Recognizing the longer-term health hazards of stress, anger, and unresolved conflict
- Identifying and dealing with toxic stressors that lead to conflict
- Quick de-stressing tips guaranteed to help you keep your cool
- Negative self-talk: How to eliminate internal dialogue that can sabotage your best efforts

# **MRP/ERP**

## **An Overview of Operations, Production, Procurement, Supply Chain & Logistics**



# MRP/ERP

## An Overview of Operations, Production, Procurement, Supply Chain & Logistics

The approach of this workshop is to provide workers unfamiliar with manufacturing concepts and technology with a look at the broad categories of long-, medium-, and short-term planning as an integrated package. Specific topics including planning, forecasting, master scheduling, material planning, capacity planning and supply chain management and procurement are covered.

### LIST OF TOPICS

#### INTRODUCTION

#### CHAPTER I

##### **Business Plan**

- Leaders Follow Processes
- Vision Statement
- Mission Statement
- Business Plan
- Formulate Your Manufacturing Strategy

#### CHAPTER II

##### **Sales and Operations Planning**

- Sales and Operations Planning
- Product Families
- Product Volume versus Product Mix
- Steps in the S&OP Process
- Benefits of the S&OP
- S&OP Considerations
- Inputs to S&OP
- Outputs to S&OP
- Production Plan
- Resource Requirements Planning
- Basic Manufacturing Formula



## **CHAPTER III Configuration Management**

- Configuration Management
- What Needs a Part Number
- Part Number Versus Drawing Number
- Unit of Measure
- Bill of Materials
- Consequences of Levels
- Engineering Changes
- Problems from Poorly Managed Bill Changes
- Types of Bills of Materials

## **CHAPTER IV Master Scheduling**

- The Master Schedule
- Ten Steps to Developing a Forecast Module
- General Forecasting Considerations
- Qualitative Forecasting
- Quantitative Forecasting
- Extrinsic Forecasting
- Forecast Accuracy
- Forecast Error Calculation
- Standard Deviation
- Demand Management
- Master Schedule & Steps in Developing the Master Schedule
- Rated Capacity
- Available to Promise
- Projected Available Balance Exercises
- The Master Schedule (A Time Phased Planning Process)
- Master Schedule Performance Measures
- Testing the Master Schedule
- JIT Forecasting
- Forecasting Model
- Forecast Error

## **CHAPTER V     Inventory Management**

- Inventory Categories
- Inventory Costs
- Why Manage Inventory
- ABC Analysis
- Concept of ABC Control
- Example of ABC Analysis
- Physical Distribution
- Warehouse Layout for Optimal Efficiency
- Location System
- Picking, Packing, and Shipping
- Delivering Products
- Logistics
- Types of Distribution Systems
- Locations of Warehouses and Distribution Centers
- Exercises
- Asset Management Inventory Reduction Program
- Key Financial Inventory Ratios
- Inventory Reduction Exercise
- 80/20 Rule
- Inventory on the Shop Floor (WIP)
- Role of Safety Stock
- Determining Inventory Needed to Cover Forecast Error

## **CHAPTER VI     MRP**

- Material Requirements Planning
- Determine Gross-to-Net Requirements
- MRP Maintenance
- Exercises
- Routing
- Where-Used Pegging
- Safety Stock
- EOQ
- Lot for Lot
- Order Point
- Min-Max
- Inventory Impact on Service Levels
- Safety Stock/Safety Lead time
- Determining When to Order
- Perpetual Inventory Record

## **CHAPTER VII Manufacturing/Production Environments**

- Production Activity Control
- Capacity
- Shop Floor Calendar
- Input/Output Control
- Monitoring Progress
- Master Planning of Resources
- Planning Horizons
- Load Work Centers
- Scheduling Orders
- Load Profile

## **CHAPTER VIII Supplier Management**

- Supply Chain Management
- Value Chain Model
- Brief History of SCM
- Market/Industry Analysis Characteristics
- Supply Chain Costs
- Total Cost of Ownership
- Functions of Supply Chain Management
- Global Market Development and Information Technology



# Basics of Negotiation



# Basics of Negotiation

This workshop will develop skills which will contribute to negotiating improved deals and contracts. Emphasis will be placed on cost reduction. The importance of comparing customer contracts with supplier contracts will be addressed. Dealing with difficult negotiators and adjusting negotiating styles for different situations will be covered. The results will be a strengthening of skills and confidence in conducting negotiations.

## LIST OF TOPICS

### CHAPTER I **Philosophy of Negotiations**

- Core Values
- Win - Win
- What others say (Getting to yes)
- Measurable objectives and Monthly/Quarterly Reviews

### CHAPTER II **Contracts**

- Knowing the contract (each person should have read their contract(s))
- Develop questions and answers regarding each

### CHAPTER III **Tools**

- Best/Worst Case Scenarios
- Develop Scenarios Planning Strategy
- Force Field Analysis
- Data Gathering and Data Analysis
- Development of a Questionnaire
- Financial Analysis
- Personnel Evaluation

### CHAPTER IV **Development of a Game Plan**

- Use Preliminary Questionnaire
- Field Test it
- Report on Results at the next session (workshop)

**CHAPTER V    Review Results**

**CHAPTER VI    Update Scenario Plans**

- Which worked
- Which didn't

**CHAPTER VII   Review Tools**

**CHAPTER VIII   Standardization and Predictability of Decision  
Making and Results**





# Developing an Inventory Strategy



# Developing an Inventory Strategy

A strategy, simply stated, is an allocation of resources (money, people, and other assets).

1. Intended to support the goals and objectives, etc. stated in such documents as the Annual Report, Business Plan or the Sales and Operations Plan.
2. In order for the strategy to be effectively executed, it must be supported by a Tactical Plan.
3. The Tactical Plan must include specified steps, assigned responsibilities, specific milestones, with dates, and expected quantity benefits.

The result is a document which allows the Company to achieve all of the above.

## INVENTORY STRATEGY

- Tactical Plan to implement strategy
- Negotiation Plan to ensure success
- To meet Corporate OTD Metrics
- Increase Corporate Inventory Turns Objectives from Four to Five
- To recognize differences by developing an individual division/product strategies

## COURSE OBJECTIVES

- Provide a review of:
  - Inventory policies, planning concepts, and techniques that support the detailed scheduling and planning of manufacturing and services
  - Scheduling and planning techniques that translate end-item plans at the master planning level into requirements that can be procured and produced with the resources available to the company
  - Project management techniques and supplier relationships that help manage the supply of product and services
- Understand item inventory policies:
  - Describe how lot-sizing and safety stock policies support aggregate level policies in manufacturing and service industries
  - Differentiate among the major lot-sizing methods
  - Explain the use of safety stock in managing inventory
- Recognize types and classifications of inventories:
  - Recognize the major types and sub-classifications of inventory
  - Explain how they affect inventory valuation and investment
  - Compare the types and roles of inventory management and policies in manufacturing and service industries
- Understand aggregate inventory policies:
  - Explain how aggregate inventory policy interrelates with a company's customer service and operations efficiency objectives

- Describe the role of inventory valuation methods
- Explain the significance of aggregate and item-inventory performance metrics
- Order review methods:
  - Differentiate between the order point and periodic review methods
  - Describe the best order review methods for dependent demand
- Aggregate and Disaggregate Planning:
  - Explain the significance of aggregate and disaggregate planning
- Impact of Lean Production Concepts:
  - Explain the logic of reducing work in process (WIP) to shorten production lead time
  - List and describe four lean production tools that increase supply chain velocity
- Accuracy, Storage, Handling and Tracking:
  - Apply ABC classification to cycle counting
  - Describe the advantages of the three major inventory location systems

## CLASS LEARNINGS

- Explain the relationship between inventory (forecast error, quality, etc.) and on-time delivery
  - Explain the significance of aggregate and disaggregate planning – Corporate, Division, and Products within the division
  - Explain the logic of reducing work in process (WIP) to shorten production lead-time
  - List and describe tools that increase supply chain velocity and visibility while reducing variation
  - Apply ABC classification to prioritize customers, products and parts.
- Determine the appropriate lot-sizing technique by the part classification to support inventory turns objective, e.g.:
  - A Parts – Lot for lot with calculated buffer stock
  - B Parts – Minimum/Maximum
  - C Parts – Minimum/Maximum
- Understand products and parts inventory policies
  - Describe how lot-sizing and safety stock policies support aggregate level policies in manufacturing and service industries
  - Differentiate among the major lot-sizing methods
  - Explain the use of safety stock, safety capacity, and lead times in managing inventory
- Understand item inventory policies
  - Describe how lot-sizing and safety stock policies support aggregate level policies

- Differentiate among the major lot-sizing methods
- Explain the use of safety stock in managing variation in demand and supply

Understand the components of lead time and the impact on Inventory Turns and DSI

- Understand Key Financial Statements that report the results
- Understand the Flow of Inventory Buildup from
  - Suppliers to (AP)
  - RM
  - WIP
  - FGI
  - Custom: Revenue/AR

} DSI – OCOGS

### **SAMPLE OF ACTIVITIES / CLASS ASSIGNMENTS TO SHOW APPLICATION OF KNOWLEDGE GAINED IN CLASS**

- Review BOM and Routings
  - Look at Product that = greater than 70% of your revenue
  - Look at Parts = A, B, C categories
- Review Lot Sizing & Reset
  - Fixed order quantity (B&C Parts)
  - Lot for Lot (A Parts, want to minimize)
  - Min/Max (A, B, C Parts)
- Calculate Capacity
  - For one product BOM and routing
  - For the bottleneck work center
  - For supplier of sole source
- Review Lead Times & Reset
  - Lead time queue, set up run, weight, move (run is the only value added)
  - Calculate Forecast Error at the Corporate, Divisional and Product Level (use the 80/20 Rule) as a basis for determining the appropriate amount of inventory to support corporate as well as division on-time delivery, inventory turns and cash-to-cash objectives

### **TOOLS & CALCULATIONS**

- Master the tools required to quantify the participants' recommendations
  - Pareto 80/20
  - Inventory turns
  - DSI - Days' Supply Inventory

- DSO – Days' Sales Outstanding
- DPO – Days' Payable Outstanding
- Cash to Cash
- Standard Deviations

## **DELIVERABLES**

- Develop recommendations, tools and timelines to go from a Corporate Aggregate of four to five turns
- Develop a Negotiation Strategy and Tactical Plan that support the recommendations



# About CFME

## CFME Capabilities

- Customized courses based on customer needs

## Why Us?

David Viale, President and CEO of CFME International Education and Consulting Company, [cfme@aol.com](mailto:cfme@aol.com), (408) 398-8280, LinkedIn, Dave Viale

- 30+ years of experience teaching people how to do and apply what they have learned
- Educator, Consultant and Writer
- Prior to CFME, worked at Arthur Anderson, Fairchild Semiconductor and Hewlett Packard
- Held various leadership positions and was a practicing CPA
- Diverse background bringing a cross-industry as well as a cross-functional perspective to his presentations
- Building on his TQC, JIT experiences, he has expanded CFMEs product offering with the “Lean All The Enterprise Series and Consulting Package”
- APICS Master CSCP Instructor
- APICS Master CPIM Instructor

Mary Ann Schabinger, Independent Consultant (Logistics and Materials Management)

- 30+ years Logistics and Materials Management experience encompassing the world
- Project Managed Systems Implementations and Enhancements
- Worked with Discrete and Process Manufacturing, Raytheon, Computer Associates, Racal-Vadic, IC Works, Cypress, and Micrel
- Experience includes Corporate Level Planning, plus Business, Materials and Operations Planning, Purchasing, Logistics, and numerous Systems Implementations
- Throughout her career, she has learned, project managed, worked with and successfully utilized the Lean All The Enterprise concepts
- For the last two years, she has “team-taught” Lean All The Enterprise, CPIM, CSCP and Lean Financials with Dave Viale

	<u>Hours</u>
Lean/Six Sigma Courses	
Lean All The Enterprise	40
Lean 6S	
Problem Solving	
Handling Conflict & Confrontation	12
Basic Math	
Finance & Accounting	16
Team Building	

## APICS

### APICS Certified Programs

#### APICS Greater San Jose Chapter

    Certified Supply Chain Professional (CSCP)

    Certified Production & Inventory Management (CPIM)

### Basics of Manufacturing Overview