MANUFACTURING - ENTERPRISE RESOURCE PLANNING
MRPII FOR SMALL MEDIUM ENTERPRISES SYLLABUS

MODULE 1. COURSE OVERVIEW
- Welcome
- Instructor/Participant Introductions
- Course Objectives
- Course Curriculum
- Pre-Assessment Questionnaire
- Manufacturing and Distribution Objectives
- Manufacturing Resource Planning
- History and Development of MRP II
- Comparison of Discrete and Process Manufacturers
- Manufacturing Systems Implementation

MODULE 2. HIGH LEVEL PLANNING
- Introduction to planning
- Strategic Planning
- Business Planning
- Sales and Operation Planning
- Sales & Marketing Plans
- Production Plans
- Resource Planning
- Financial Planning

MODULE 3. INVENTORY MANAGEMENT
- Inventory fundamentals
- Physical management of materials
- Replenishment techniques
- Inventory record accuracy
- ABC analysis
- Cycle counting
- Lot tracking

MODULE 4. BILLS OF MATERIAL
- What is a Bill of Material?
- Forms of BOM display
- Structuring BOM’s
- Co-products and by-products
- Change management
- Geography/Seasonality/Substitutes

MODULE 5. WORK CENTRES AND ROUTINGS
- Work centre definition

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MODULE 6. FORECASTING
- Why forecast?
- Forecasting fundamentals
- Forecasting techniques
- Measuring forecast accuracy
- Problems in forecasting

MODULE 7. DISTRIBUTION RESOURCE PLANNING (DRP)
- The need for DRP
- DRP overview
- DRP fundamentals
- DRP integration with manufacturing
- Using DRP for special distribution situations
- Financial planning and simulation activities
- Transportation planning
- Implementing DRP
- Summary

MODULE 8. MASTER PRODUCTION SCHEDULING
- What is the MPS?
- Basic calculations
- Order promising
- Timing considerations
- Controlling the MPS
- The MPS/MRP link
- Monitoring MPS effectiveness

MODULE 9. ROUGH CUT CAPACITY PLANNING (RCCP)
- What is RCCP?
- How do we plan capacity?
- Capacity planning tools?

MODULE 10. MATERIAL REQUIREMENTS PLANNING
- What is MRP?
- Terms and concepts
- Mechanics of MRP
- Lead times, lot sizes and safety stock
- Replanning using MRP
- MRP and the computer

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MODULE 11. CAPACITY REQUIREMENTS PLANNING
 What is Capacity Requirements Planning?
 How do we measure capacity?
 How can we change capacity?

MODULE 12. PURCHASING
 Objectives
 Purchasing Activities
 The procurement cycle
 Computer-aided purchasing
 Blanket purchase orders
 Vendor performance measurement
 Purchasing performance measurement

MODULE 13. PRODUCTION ACTIVITY CONTROL
 Introduction to PAC
 Scheduling production
 Order release
 Production reporting and status control
 Keeping on schedule
 Feedback and performance measurement

MODULE 14. MANUFACTURING COST ACCOUNTING
 Overview
 Functions of cost accounting systems
 Cost accounting terminology
 Inventory valuation
 Collecting and tracking costs
 Performance measurement systems

MODULE 15. THE ROAD TO SUCCESS
 First-cut education
 Cost justification and commitment
 User-controlled project team
 Full-time project leader
 Executive steering committee
 Professional guidance
 Education of the critical mass
 Pilot approach to MPS/MRP
 Close the loop
 Finance and simulation
 Dedication to continuous improvement

MODULE 16. MRP II PERFORMANCE MEASUREMENT
 Class A

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MODULE 17.  ERP HISTORY - FROM MRP to MRP II to ERP to ERPII

MODULE 18.  SUPPLY CHAIN & ERP
  ➢ Introduction
  ➢ The Dream: The Extended Supply Chain
  ➢ The Reality: The Failure of ERP
  ➢ Today’s Supply Chain Solution - Assembly Required
  ➢ Evolution of the Supply Chain Packaged Apps Market
  ➢ Impact on Users

MODULE 19.  16 STEPS TO ERP SUCCESS

MODULE 20.  ABCD CHECKLIST

MODULE 21.  COST BENEFIT ANALYSIS

MODULE 22.  IMPLEMENTATION GUIDELINES
  ➢ Introduction
  ➢ Systems Development Approach
  ➢ Organization
  ➢ Management and User Commitment
  ➢ Education and Training
  ➢ Work plans
  ➢ Performance Measurement
  ➢ Preparation
  ➢ Strategy for Implementation

MODULE 23.  DATA ACCURACY