



**BAKER COLLEGE**  
**STUDENT LEARNING OUTCOMES**  
SCM 3210 Manufacturing, Planning, and Control  
3 Semester Hours

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**Student Learning Outcomes and Enabling Objectives**

1. Explain the advantages and disadvantages of different forecasting methods.
    - a. Perform basic forecasting methods.
    - b. Discuss the role of (Strengths, Weaknesses, Opportunities, Threats) SWOT analysis in forecasting.
    - d. Analyze forecast accuracy.
  2. Explain the requirements for logistics and distribution.
    - a. Discuss the importance of warehouse requirements, capability, and layout.
    - b. Examine the impact of time constraints.
    - c. Describe mode selection.
  3. Explore the fundamentals and tools used for inventory control.
    - a. Describe different methods and tools for inventory control and when they are used.
    - b. Distinguish between various inventory accounting practices.
    - c. Calculate correct economic order quantities and reorder points.
  4. Determine resources needed to meet the Master Production Schedule (MPS).
    - b. Examine the importance of capacity planning.
    - c. Explain coordination of sales.
    - d. Discuss the following:
      - i. Build to Order (BTO)
      - ii. Make to Order (MTO)
      - iii. Build to Stock (BTS)
  5. Explain Materials Resource Planning (MRP) and how it is used to meet the company's production schedule.
    - a. Discuss the impact of material requirement demand.
    - b. Describe the development and use of Enterprise Resource Planning (ERP) System.
  6. Investigate the principals of Lean Operations.
    - a. Describe components of a lean system.
    - b. Compare lean management systems.
    - c. Discuss the type of waste that can occur during production.
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**Big Ideas and Essential Questions**

**Big Ideas**

- Inventory Controls
- Forecasting
- Sales and Operation Planning
- Production Scheduling
- Techniques in Materials Resource Planning (MRP)
- Supply Chain Logistics & Distribution
- Lean Systems

## Essential Questions

1. What is the importance of effective inventory management?
2. Why is demand management important?
3. How do capital constraints impact sales and operations planning?
4. What role do physical structures play in operations planning?
5. How does supply chain management fit within enterprise resource planning?
6. How do you gain a competitive advantage through production scheduling?
7. What are the most important factors that go into selecting the best mode for distribution?
8. What is the need for forecasting in operations planning?
10. What impact can lean thinking have on manufacturing planning and control?

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These SLOs are approved for experiential credit.

**Effective: Fall 2017**