



Western Technical College

# 10102131 Operations Management

## Course Outcome Summary

### Course Information

<b>Description</b>	Learners apply the skills and tools necessary to contend with problems facing management and employees, with special emphasis on operational planning, processes, reporting, and performance measurement. Problem solving is emphasized.
<b>Career Cluster</b>	Business Management and Administration
<b>Instructional Level</b>	Associate Degree Courses
<b>Total Credits</b>	3
<b>Total Hours</b>	54

### Pre/Corequisites

Prerequisite	10101108 Introduction to Accounting
Prerequisite	10102134 Principles of Management
Prerequisite	10804123 Math with Business Apps
Prerequisite	10801197 Technical Reporting

### Textbooks

No textbook required.

### Learner Supplies

Online simulation. **Vendor:** To be discussed in class. Required.

### Program Outcomes

1. Plan the operations of a business across functional areas.
2. Organize resources to achieve the goals of an organization.
3. Direct individuals and/or processes to meet organizational goals.

4. Control business processes.
5. Apply principles of corporate responsibility.

## Course Competencies

### 1. Examine the mission statement and how it drives the competitive business advantage through operations management.

#### Assessment Strategies

- 1.1. Written Product

#### Criteria

*You will know you are successful when*

- 1.1. you identify a mission statement for a real-world company.
- 1.2. you explain how the mission statement guides what an organization does.
- 1.3. you determine what the competitive business strategy is for a real-world company.
- 1.4. you provide an example of the competitive business strategy for a real-world company.
- 1.5. you practice professional writing techniques and citations for research and interviews.

#### Learning Objectives

- 1.a. Define what a mission statement is.
- 1.b. Explain how the mission statement guides what an organization does.
- 1.c. Determine what a competitive business strategy is.

### 2. Investigate the design, re-design, and development of products and services to maintain a competitive advantage.

#### Assessment Strategies

- 2.1. Written Product

#### Criteria

*You will know you are successful when*

- 2.1. you identify something a business has done to design or redesign their product or service.
- 2.2. you discuss which of the four alternative strategies a real-world company has used.
- 2.3. you provide one order qualifier for a real-world company.
- 2.4. you provide one order winner for a real-world company.
- 2.5. you determine what stage of the service/product life cycle one product or service is in for a real-world company.
- 2.6. you practice professional writing techniques and citations for research and interviews.

#### Learning Objectives

- 2.a. Understand the concept of product/service life cycle.
- 2.b. Define what an order qualifier is.
- 2.c. Define what an order winner is.
- 2.d. List alternative strategies a business might use in designing and developing services and products.

### 3. Examine processes and the use of key performance metrics.

#### Assessment Strategies

- 3.1. Drawing/Illustration
- 3.2. Written Product

#### Criteria

*You will know you are successful when*

- 3.1. You identify a process for a real-world company.
- 3.2. You illustrate the steps in the process for a real-world company.
- 3.3. You use correct process map symbols.
- 3.4. You identify two key performance metrics for a real-world company.
- 3.5. You share how the key performance metrics for the real-world company align with the business's competitive business strategy.

- 3.6. You share important areas to measure for a real-world company.
- 3.7. You identify who measures the metrics for a real-world company.
- 3.8. you practice professional writing techniques and citations for research and interviews.

#### **Learning Objectives**

- 3.a. Define what a process is.
- 3.b. Chart a process for a business using the correct format.
- 3.c. Understand what key performance metrics are used by businesses for operations.
- 3.d. Determine the connection between operational performance metrics and their competitive business strategy.

### **4. Explore basic types of facility layouts and how they impact the efficiency of the organization.**

#### **Assessment Strategies**

- 4.1. Diagram
- 4.2. Written Product

#### **Criteria**

*You will know you are successful when:*

- 4.1. you generate a “blueprint” style of the facility layout.
- 4.2. you properly label the layout.
- 4.3. you identify the type of layout.
- 4.4. you explain your type of layout and include comparative information from the other styles.
- 4.5. you practice professional writing technique and citations for research and interviews.

#### **Learning Objectives**

- 4.a. Explain the strategic importance of facility layout.
- 4.b. Identify issues with facility layout.

### **5. Explore forecasting.**

#### **Assessment Strategies**

- 5.1. Written Product
- 5.2. Case Study real world organization

#### **Criteria**

*You will know you are successful when*

- 5.1. you define what a quantitative forecast.
- 5.2. you define what a qualitative forecast is.
- 5.3. you select a time series decomposition forecast used by a real-world company.
- 5.4. you identify whether a real-world organization uses any types of qualitative forecasts.
- 5.5. you explain how the use of forecasting can help a company be successful.
- 5.6. you create a three-period simple moving average forecast for a real-world company.
- 5.7. you practice professional writing techniques and citations for research and interviews.

#### **Learning Objectives**

- 5.a. List the three time horizons for forecasting
- 5.b. Examine the qualitative forecasting model
- 5.c. Explain quantitative models of forecasting
- 5.d. Illustrate a simple moving average forecast.

### **6. Determine the effect capacity has in operations management.**

#### **Assessment Strategies**

- 6.1. Simulation
- 6.2. Case Study - Real World Organization

#### **Criteria**

*You will know you are successful when*

- 6.1. you identify capacity as it relates to your business.
- 6.2. you show at least one example of how company determines capacity.
- 6.3. you give examples of benefits and risks with minimum and maximum capacity.
- 6.4. you solve for capacity utilization.

- 6.5. you solve for capacity efficiency.
- 6.6. you practice professional writing techniques and citations for research and interviews.

**Learning Objectives**

- 6.a. Define capacity in operations management.
- 6.b. Compare demand and capacity.
- 6.c. Use formulas to determine correct capacity.
- 6.d. Manage short-term and long-term capacity within simulation.
- 6.e. Explain theory of constraints.

**7. Determine how managing inventory is an integral part of operations management.**

**Assessment Strategies**

- 7.1. Simulation
- 7.2. Performance

**Criteria**

*You will know you are successful when*

- 7.1. you explain the inventory types discussed.
- 7.2. you identify inventory holding costs discussed.
- 7.3. you note setup costs discussed.
- 7.4. you explain how ordering costs affect the price of inventory.
- 7.5. you show understanding of the cost of shortages discussed.
- 7.6. you discuss the procedure for ordering and maintaining inventory.
- 7.7. you can describe what ABC inventory management analysis is.
- 7.8. you practice professional writing technique and citations for research and interviews.

**Learning Objectives**

- 7.a. Identify the different types of inventory.
- 7.b. Explain different methods for managing inventory.
- 7.c. Explain the costs associated with managing an inventory.
- 7.d. Understand the importance of managing inventory for a business to be successful.

**8. Analyze location factors which promote business's overall success.**

**Assessment Strategies**

- 8.1. Case Study - Real World Organization
- 8.2. Performance

**Criteria**

*You will know you are successful when*

- 8.1. you discuss your company's current location.
- 8.2. you explain the importance of your company's location as it relates to customers.
- 8.3. you examine your company's location as it relates to resources.
- 8.4. you discuss your company's location as it relates to suppliers and shipping.
- 8.5. you practice professional writing technique and citations for research and interviews.

**Learning Objectives**

- 8.a. Characterize the factors which affect location decisions.
- 8.b. Demonstrate understanding of the difference between a service location strategy and goods.
- 8.c. Utilize data to determine optimal strategy.

**9. Explain the importance of the supply chain in operations management.**

**Assessment Strategies**

- 9.1. Written Product
- 9.2. Case Study real world organization

**Criteria**

*You will know you are successful when*

- 9.1. you discuss the strategic importance of the supply chain.
- 9.2. you discuss the difference between a supply chain and supply chain management.
- 9.3. you identify a product from a supply chain for a specific organization.

- 9.4. you identify how suppliers can impact efficiency.
- 9.5. you explain supplier impact on customer satisfaction.
- 9.6. you describe some potential causes of the bullwhip effect on the supply chain.
- 9.7. you practice professional writing technique and citations for research and interviews.

**Learning Objectives**

- 9.a. Explain the strategic importance of the supply chain.
- 9.b. Detail issues and opportunities in the supply chain.
- 9.c. Evaluate supply chain performance with tools such as vendor scorecard.
- 9.d. Demonstrate understanding of importance of customer to product or service success.

**10. Explore the business operations of organizations that practice sustainability.**

**Assessment Strategies**

- 10.1. Written Product

**Criteria**

- 10.1. you define what sustainability is.
- 10.2. you list several methods an organization can be sustainable.
- 10.3. you indicate how much money an organization can save by practicing sustainability.
- 10.4. you practice professional writing techniques and citations for research and interviews.

**Learning Objectives**

- 10.a. Define sustainability.
- 10.b. Identify two organizations that practice sustainability.