

Western Technical College

10102131 Operations Management

Course Outcome Summary

Course Information

Description	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.
Career Cluster	Business Management and Administration
Instructional Level	Associate Degree Courses
Total Credits	3
Total Hours	54

Textbooks

No textbook required.

Learner Supplies

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

Success Abilities

1. Apply mathematical concepts.
2. Demonstrate ability to think critically.
3. Demonstrate ability to value self and work ethically with others in a diverse population.
4. Make decisions that incorporate the importance of sustainability.
5. Transfer social and natural science theories into practical applications.
6. Use effective communication skills.
7. Use technology effectively.

Program Outcomes

1. Plan the operations of a business across functional areas.
2. Organize resources to achieve the goals of an organization.
3. Control business processes.

4. Direct individuals and/or processes to meet organizational goals.
5. Apply principles of corporate responsibility.

Course Competencies

1. Explain the importance of the supply chain in operations management.

Assessment Strategies

- 1.1. Simulation
- 1.2. Written Product/Scorecard

Criteria

You will know you are successful when

- 1.1. you discuss the strategic importance of the supply chain.
- 1.2. you create a vendor scorecard and discuss its importance and usage.
- 1.3. you identify how suppliers can impact efficiency.
- 1.4. you explain supplier impact on customer satisfaction.
- 1.5. you explain how you can use the scorecard to monitor suppliers.
- 1.6. you practice professional writing technique and citations for research and interviews.

Learning Objectives

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

2. Utilize forecasting tools to assist with managing operations

Assessment Strategies

- 2.1. Performance
- 2.2. Case Study real world organization
- 2.3. Simulation
- 2.4. Skill Demonstration

Learning Objectives

- 2.a. List the three time horizons for forecasting
- 2.b. Explain the qualitative model
- 2.c. Explain quantitative models of forecasting
- 2.d. Use measures of forecasting accuracy
- 2.e. Use forecasting tools to assist with managing operations

3. Examine organizational planning.

Assessment Strategies

- 3.1. Simulation
- 3.2. Case Study - Real World Organization

Criteria

You will know you are successful when

- 3.1. you identify a real world company to follow and a contact person for interviews.
- 3.2. you identify your company as Service Business or Goods Producing.
- 3.3. you discuss and identify the Mission/Vision of your company.
- 3.4. you identify how daily operations support the strategies in the Mission/Vision.
- 3.5. you observe how the Mission/Vision is apparent to customer/employees.
- 3.6. you practice professional writing techniques and citations for research and interviews.

Learning Objectives

- 3.a. Define mission and strategy.
- 3.b. Explore competitive priorities.
- 3.c. Compare the difference between customer wants and needs.
- 3.d. Explore tactical analysis methods.

4. Determine the effect capacity has in operations management.

Assessment Strategies

- 4.1. Simulation
- 4.2. Performance - solve problems
- 4.3. Case Study - Real World Organization

Criteria

You will know you are successful when

- 4.1. you identify capacity as it relates to your business.
- 4.2. you show at least one example of how company determines capacity.
- 4.3. you give examples of benefits and risks with minimum and maximum capacity.
- 4.4. you describe any constraints the case company has.
- 4.5. you practice professional writing technique and citations for research and interviews.

Learning Objectives

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

5. Explore basic types of facility layouts and how they impact the efficiency of the organization.

Assessment Strategies

- 5.1. Diagram
- 5.2. Written Product

Criteria

You will know you are successful when:

- 5.1. you generate a "blueprint" style of the facility layout.
- 5.2. you properly label the layout.
- 5.3. you identify the type of layout.
- 5.4. you explain your type of layout and include comparative information from the other styles.
- 5.5. you practice professional writing technique and citations for research and interviews.

Learning Objectives

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

6. Correlate how process selection, design, and analysis impact a business.

Assessment Strategies

- 6.1. Simulation
- 6.2. Drawing/Illustration - flow chart.

Criteria

Your performance will be successful when:

- 6.1. you create a process map for a process within your organization.
- 6.2. you utilize the correct symbols in process map.
- 6.3. your process map will be computer generated.
- 6.4. you include a detailed description of the process and flow.
- 6.5. you identify why the process is set up as it is.
- 6.6. you describe in general how the processes are different and similar in goods versus services processes.

Learning Objectives

- 6.a. Compare the differences between the different types of processes.
- 6.b. Diagram a process flowchart which shows the sequence of all process activities and tasks necessary to create and deliver a desired output or outcome.
- 6.c. Identify the differences between goods and services.
- 6.d. Explain the role of processes in operations management and identify three general types of processes.

7. Analyze location factors which promote business's overall success.

Assessment Strategies

- 7.1. Case Study - Real World Organization
- 7.2. Performance

Criteria

You will know you are successful when

- 7.1. you discuss your company's current location.
- 7.2. you explain the importance of your company's location as it relates to customers.
- 7.3. you examine your company's location as it relates to resources.
- 7.4. you discuss your company's location as it relates to suppliers and shipping.
- 7.5. you practice professional writing technique and citations for research and interviews.

Learning Objectives

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

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

Assessment Strategies

- 8.1. Simulation
- 8.2. Performance

Criteria

You will know you are successful when

- 8.1. you explain the inventory types discussed.
- 8.2. you identify inventory holding costs discussed.
- 8.3. you note setup costs discussed.
- 8.4. you explain how ordering costs affect the price of inventory.
- 8.5. you show understanding of the cost of shortages discussed.
- 8.6. you discuss the procedure for ordering and maintaining inventory.
- 8.7. you practice professional writing technique and citations for research and interviews.

Learning Objectives

- 8.a. Explain different methods for managing inventory.
- 8.b. Identify what a reorder point and safety stock are.
- 8.c. Explain the quantity discount model.
- 8.d. Understand service levels and probabilistic inventory models.

9. Investigate the control process of operations management.

Assessment Strategies

- 9.1. Skill Demonstration
- 9.2. Case Study Real World Organization

Criteria

You will know you are successful when:

- 9.1. you identify your company's process of operation in detail.
- 9.2. you discuss the necessary equipment for operation.
- 9.3. you discuss how Operations relates to human resources.
- 9.4. you describe operational delays in detail.
- 9.5. you practice professional writing technique and citations for research and interviews.

Learning Objectives

- 9.a. Incorporate information from formula calculations into simulation decisions.
- 9.b. Review key performance indicators.
- 9.c. Explore business operations of organizations which practice sustainable management.