

SCMT 320: Operations Management

Prerequisite(s): None

Credits: 3



I. Course Description

This course enables the student to delve into the vital field of operations management and how it relates to the supply chain. Major areas of study include the evolution, philosophy, concepts, tools, and techniques associated with operation management. Specific topics to be examined include an introduction to operations management; product and service design; product selection and facility layout; management of quality/quality control; supply chain management; inventory management; aggregate planning; lean operations; project management; and management of waiting lines. The course combines theory and application to provide an up-to-date, practical learning opportunity that focuses on the needs of modern managers and professionals in an age of global competition and rapid technological change. Character and operational excellence principles related to management activities are also explored and applied.

II. Course Objectives

At the end of this course, students should be able to demonstrate the ability to:

1. Describe the role of operations management in the overall business strategy of the firm.
2. Explain the interdependence of the operating system with other key functional areas of the firm.
3. Identify and evaluate the key factors and the interdependence of these factors in the design of effective operating systems.
4. Identify and evaluate a range of tools appropriate for analysis of operating systems of the firm.
5. Identify and evaluate comparative approaches to operations management in an international context.
6. Explain the application of operations management policies and techniques to the service sector as well as manufacturing firms.
7. Integrate Christian principles with production decisions, including, but not limited to, hiring and firing decisions, layoffs, plant closings, etc.

III. Course Textbooks and Readings Materials

****Students must purchase in advance texts and/or materials for this course.***

Operations management (13th ed.).

Author: W. J. Stevenson

ISBN: 978-1259667473

Management by Proverbs: Scriptural Wisdom for Superior Results Paperback – June 30, 2020

Author: M. A. Zigarelli

ISBN: 99780578718217

IV. Weekly Information

Module One – Week 1

Introduction to Operations Management

Objectives

At the end of this lesson, students should be able to:

- 1.1 Define the terms *operations management* and *supply chain*
- 1.2 Identify similarities and differences between production and service operations
- 1.3 Explain the importance of learning about operations management
- 1.4 Identify the three major functional areas of organizations and explain how they interrelate
- 1.5 Summarize the two major aspects of process management
- 1.6 Describe the operations function and the nature of the operations manager's job
- 1.7 Explain the key aspects of operations management decision making
- 1.8 Describe the historical evolution of operations management
- 1.9 Describe the current issues in business that impact operations management
- 1.10 Explain the need to manage the supply chain

Reading

- Read chapter 1 of the Stevenson, W. J. (2017). *Operations management* (13th ed.)

Deliverables

- Two (2) Discussion board posts and responses – main posts due on Thursday and replies are due on Sunday
- Test your understanding questions – Problems – due Sunday
- Weekly Quiz/Test – due Sunday

Module Two – Week 2

Competitiveness, Strategy, and Productivity

Objectives

At the end of this lesson, students should be able to:

- 2.1 List several ways that business organizations compete
- 2.2 Name several reasons that business organizations fail
- 2.3 Define the terms mission and strategy and explain why they are important
- 2.4 Discuss and compare organization strategy and operations strategy, and explain why it is important to link the two
- 2.5 Describe and give examples of time-based strategies
- 2.6 Define the term productivity and explain why it is important to organizations and to countries
- 2.7 Describe several factors that affect productivity

Reading

- Read chapters 2 of the Stevenson, W. J. (2017). *Operations management* (13th ed.)
- Read Principles 1 and 2 in Management by Proverbs book

Deliverables

- Discussion board post and responses– main posts due on Thursday and replies are due on Sunday
- Case Study – due Sunday
- Test your understanding questions – Problems – due Sunday
- Weekly Quiz/Test – due Sunday

Module Three – Week 3

Product and Service Design/Process Selection and Facility Layout

Objectives

At the end of this lesson, students should be able to:

- 3.1 Explain the strategic importance of product and service design
- 3.2 Describe what product and service design does
- 3.3 Name the key questions of product and service design
- 3.4 Identify some reasons for design or redesign
- 3.5 List some of the main sources of design ideas
- 3.6 Discuss the importance of legal, ethical, and sustainability considerations in product and service design
- 3.7 Explain the purpose and goal of life assessment
- 3.8 Explain the phrase “the 3 Rs”
- 3.9 Discuss several key issues in product or service design

- 3.10 Discuss the two key issues in service design
- 3.11 Name the phases in service design
- 3.12 List the characteristics of well-designed service systems
- 3.13 List some guidelines for successful service design
- 3.14 Explain the strategic importance of process selection and the influence it has on the organization and its supply chain
- 3.15 Name the two main factors that influence process selection
- 3.16 Compare the four basic processing types
- 3.17 Explain the need for management of technology
- 3.18 List some reasons for redesign of layouts
- 3.19 Describe product layouts and their main advantages and disadvantages
- 3.20 Describe process layouts and their main advantages and disadvantages
- 3.21 Solve simple line-balancing problems
- 3.22 Develop simple process layouts

Reading

- Read chapters 4 and 6 of the Stevenson, W. J. (2017). *Operations management* (13th ed.)
- Read Principles 8 and 9 in Management by Proverbs book

Deliverables

- Discussion board post and responses– main posts due on Thursday and replies are due on Sunday
- Test your understanding questions – Problems – due Sunday
- Weekly Quiz/Test – due Sunday

Module Four – Week 4

Management of Quality/Quality Control

Objectives

At the end of this lesson, students should be able to:

- 4.1 Discuss the philosophies of quality gurus
- 4.2 Define the term quality as it relates to products and as it relates to services
- 4.3 Identify the determinants of quality
- 4.4 Explain why quality is important and the consequences of poor quality
- 4.5 Distinguish the costs associated with quality
- 4.6 Discuss the importance of ethics in managing quality
- 4.7 Compare the quality awards
- 4.8 Discuss quality certification and its importance
- 4.9 Describe TQM
- 4.10 Give an overview of problem solving
- 4.11 Give an overview of process improvement

- 4.12 Describe the six sigma methodology
- 4.13 Describe and use various quality tools
- 4.14 Explain the need for quality control
- 4.15 Discuss the basic issues of inspection
- 4.16 List and briefly explain the elements of the control process
- 4.17 Explain how control charts are used to monitor a process, and the concepts that underlie their use
- 4.18 Use and interpret control charts
- 4.19 Perform run tests to check for no randomness in process output
- 4.20 Assess process capability

Reading

- Read chapters 9 & 10 of the Stevenson, W. J. (2017). *Operations management* (13th ed.)
- Read the case study, Big Problem at Big Idea, in Management by Proverbs book

Deliverables

- Discussion board post and responses– main posts due on Thursday and replies are due on Sunday
- Case Study – due Sunday
- Test your understanding questions – Problems – due Sunday
- Weekly Quiz/Test – due Sunday

Module Five – Week 5

Supply Chain Management

Objectives

At the end of this lesson, students should be able to:

- 5.1 Explain the terms supply chain and logistics
- 5.2 Name the key aspects of supply chain management
- 5.3 List, and briefly explain, current trends in supply chain management
- 5.4 Outline the benefits and risks related to outsourcing
- 5.5 Explain what the main supply chain risks are, and what businesses can do to minimize those risks
- 5.6 Describe some of the complexities related to global supply chains
- 5.7 Briefly describe the ethical issues in supply chains and the key steps companies can take to avoid ethical problems
- 5.8 Describe the three concerns of small businesses related to the supply chain and suggest ways to manage those concerns
- 5.9 List several strategic, tactical, and operational responsibilities related to managing the supply chain

- 5.10 Discuss procurement in terms of the purchasing interfaces, the purchasing cycle, ethics, and centralized versus decentralized decision making
- 5.11 Briefly describe the key aspects of supplier management
- 5.12 Discuss the logistics aspects of supply chain management, including RFID technology
- 5.13 Discuss the issues involved in managing returns
- 5.14 Describe some of the challenges in creating an effective supply chain and some of the trade-offs involved

Reading

- Read chapters 15 of the Stevenson, W. J. (2017). *Operations management* (13th ed.)

Deliverables

- Discussion board post and responses– main posts due on Thursday and replies are due on Sunday
- Test your understanding questions – Problems – due Sunday
- Weekly Quiz/Test – due Sunday

Module Six – Week 6

Inventory Management/Aggregate Planning

Objectives

At the end of this lesson, students should be able to:

- 6.1 Describe the conditions under which MRP is most appropriate
- 6.2 Describe the inputs, outputs, and nature of MRP processing
- 6.3 Explain how requirements in a master production schedule are translated into material requirements for lower-level items
- 6.4 Discuss the benefits and requirements of MRP
- 6.5 Describe some of the difficulties users have encountered with MRP
- 6.6 Describe MRP II and its benefits
- 6.7 Explain how an MRP system is useful in capacity requirements planning
- 6.8 Describe ERP, what it provides, and its hidden costs
- 6.9 Define the term inventory
- 6.10 List the different types of inventory
- 6.11 Describe the main functions of inventory
- 6.12 Discuss the main requirements for effective management
- 6.13 Explain periodic and perpetual review systems
- 6.14 Describe the costs that are relevant for inventory management
- 6.15 Describe the A-B-C approach and explain how it is useful
- 6.16 Describe the basic EOQ model and its assumptions and solve typical problems
- 6.17 Describe the economic production quantity model and solve typical problems
- 6.18 Describe the quantity discount model and solve typical problems
- 6.19 Describe reorder point models and solve typical problems

- 6.20 Describe situations in which the fixed-order interval model is appropriate and solve typical problems
- 6.21 Describe situations in which the single-period model is appropriate, and solve typical problems

Reading

- Read chapter 12 and 13 of the Stevenson, W. J. (2017). *Operations management* (13th ed.)

Deliverables

- Discussion board post and responses– main posts due on Thursday and replies are due on Sunday
- Case Study – due Sunday
- Test your understanding questions – Problems – due Sunday
- Weekly Quiz/Test – due Sunday

Module Seven – Week 7

Lean Operations

Objectives

At the end of this lesson, students should be able to:

1. Explain the terms lean operations and JIT
2. Describe the main characteristics of lean systems
3. List the five principles of the way lean system function
4. List some of the benefits and some of the risks of lean operations LO 14.5 Describe the Toyota Production System (TPS)
5. List the three goals of a lean system and explain its importance of each
6. List the eight wastes according to lean philosophy
7. Identify and briefly discuss the four building blocks of a lean production system
8. Describe key lean improvement tools
9. Outline considerations for successful conversion from a traditional system to a lean system
10. Describe some of the obstacles to lean success

Reading

- Read chapter 14 of the Stevenson, W. J. (2017). *Operations management* (13th ed.)

Deliverables

- Discussion board post and responses– main posts due on Thursday and replies are due on Sunday
- Test your understanding questions – Problems – due Sunday

- Final Exam (cumulative) – due Sunday

V. Course Information and Grading

Course Requirements (Weekly)

Each Module will be based on the inclusion and grading of the following segments: Discussion Boards, Assignments/ Case Studies/ Projects.

Class Discussions

Successful online learning requires active and meaningful participation in the Discussion Board Forum. Critical thinking, appropriate use of judgment and professional comments are required for all responses. Simple agreement or disagreement with a fellow student does not constitute a quality response. Student opinions are important but must be supported by relevant data obtained in the literature or text.

1. One initial discussion board post is due by the fourth day (Thursday @ 11:59 pm) of each weekly module and two response posts are due by the last day (Sunday @ 11:59 pm) of each weekly module.
2. Participation – Students must meet initial and response post deadlines to be eligible for full points. Late initial posts may be accepted with a 33% reduction in the overall score assessed for each day late. Two response posts are required. If only one is received, then the overall score will be reduced by 25%. If no response posts are received, then the overall score will be reduced by 50%.
3. Students should be respectful and write in a proper and professional manner.

Please refer to the Discussion Board Rubric located within course syllabus for specific requirements and guidance on delivering a substantial discussion.

Late and Make-up Assignments

All deliverables are due by 11:59 PM on the due dates indicated. Assignments that are submitted after the due date without prior written approval (text or email) from the instructor will receive the following deductions:

1. Late assignments are subject to a deduction of 10% of the available points for each day late.
2. Assignments submitted later than one week after due date will not be accepted and will receive a zero (0).
3. No work may be submitted after the last day of the course.
4. See [Class Discussions](#) for late discussion post policy.

When substantive emergencies occur, acceptance of late submissions is left to the discretion of the course instructor.

Written Work

- All graded assignments must be typewritten, as designated by the professor of record for the course.
- All referenced materials must be presented according to the Publication Manual of the American Psychological Association (APA), based on the most current published edition. (current, 7th edition) (Except for English courses that specify use of MLA format.)
- All required written assignments are due on the last night of each lesson week at 11:59pm EST. This information is included in the course scheduler and calendar of every course.
- All written and graded assignments are considered the property of the College of Adult and Professional Studies and should be returned to the appropriate professor of record for the related course.
- SafeAssign may be used to check for plagiarism.
- Final Exam will be cumulative in Week 7.

Policies

Academic support information is available under “CAPS Policies”

Grading Scale and Assigned Letter Grades

Charleston Southern Online Undergraduate classes follow the following numerical and letter grading scale. Grades will be posted by the Sunday night following the closing of the Module. No grades will be given to students over the phone.

A = 900 -1000 points

B+ = 870 -899 points

B = 800 – 869 points

C+ = 770 – 799 points

C = 700 – 769 points

D = 600 -699 points

F = <600 points

The following table shows the assignment types contained within this course and the assigned weighting used to determine the final course grade.

Activity Types	Weights (%)
Discussion Forums	30
Case Studies	21
Test your understanding - Problems	35
Weekly Quiz/Test	14
Total	100

Discussion Board Rubric – Introduction (First week only: 20 Points)

Criteria	Minimal	Effective
Pts Possible: 0 or 10 Initial Post Introduction.	Pts Possible: 0 No post or did not follow instructions at all.	Pts Possible: 10 Posted following instructions.
Pts Possible: 0 or 10 Response Posts Welcome.	Pts Possible: 0 No post or did not follow instructions at all.	Pts Possible: 10 Posted following instructions.

Participation – Students must meet initial and response post deadlines to be eligible for full points. Late initial posts may be accepted with a 33% reduction in the overall score assessed for each day late. Two response posts are required. If only one is received, then the overall score will be reduced by 25%. If no response posts are received, then the overall score will be reduced by 50%.

Discussion Board Rubric (40 points possible)

Rubric Criteria	Minimal	Competent	Effective	Mastery
<p><i>Pts Possible: 0 - 20</i></p> <p>Initial Post</p> <p>Understanding:</p> <p>Discovers and conveys understanding through relevant discussion with peers. Relevant and proper business writing and critical thought development. Posts timely.</p> <p><i>A minimum of 2 peer-reviewed sources are cited in the post and listed in appropriate APA format at the end of the post.</i></p>	<p><i>Pts Possible: 0 - 5</i></p> <p>Student provides weak contribution to the discussion board. Addresses the questions in a manner that is unclear or does not convey concept understanding. Shows evidence of critical thought but is not concise or complete. Does not cite any peer-reviewed sources. <i>Post is less than 75 words.</i></p> <p>0 points if post is not submitted by 11:59 p.m. on Thursday.</p>	<p><i>Pts Possible: 6 - 10</i></p> <p>Student makes contribution by making a mostly complete response to the questions. The contribution is mostly restatement of materials. Student conveys thoughts adequately; however, needs to further develop critical aspects. Student cites 1 peer-reviewed source. Not in appropriate APA format. A few writing errors.</p> <p><i>Post has between 75 - 124 words.</i></p>	<p><i>Pts Possible: 11-15</i></p> <p>Student advances the discussion and body of knowledge providing relevant, original thoughts to the question. Student conveys thoughts in a well- rounded manner that shows understanding, critical thought and application of concepts. Student cites 2 peer-reviewed sources in the body of the post. Not APA format.</p> <p>Well written.</p> <p><i>Post has between 125 – 250 words.</i></p>	<p><i>Pts Possible: 16-20</i></p> <p>Student provides relevant and thought-provoking viewpoints to the question. Post is innovative and indicates a high level of thought.</p> <p>Student writing shows a high level of critical thought, analysis and application of concepts and ideas. Student cites 2 peer-reviewed sources in the body of the post in proper APA format.</p> <p>Very well-written.</p> <p><i>Post exceeds 250 words.</i></p>
<p><i>Pts Possible: 0 - 20</i></p> <p>Response Posts</p> <p>Discovers key areas of knowledge and concepts from peers. Furthers the body of knowledge by</p>	<p><i>Pts Possible: 0 - 5</i></p> <p>Student shows minor comprehension of the concepts and viewpoints from peers. The responses are vague and do not show understanding or</p>	<p><i>Pts Possible: 6 - 10</i></p> <p>A student shows adequate understanding of the knowledge and concepts posted by peers. The responses are mostly “I agree...”</p>	<p><i>Pts Possible: 11-15</i></p> <p>Student advances the discussion providing additional commentary and critique. The responses are correct but mostly restate the peers’</p>	<p><i>Pts Possible: 16-20</i></p> <p>Student advances the discussion providing additional commentary that is relevant or offers an alternative. Critical thought</p>

Rubric Criteria	Minimal	Competent	Effective	Mastery
<p>responding to peers' posts with relevant and thought-provoking comments. <i>A minimum of 1 peer-reviewed source is cited and listed in appropriate APA format at the end of each student response.</i></p> <p>0 points = no response posts.</p> <p>10 points = 1 response post.</p>	<p>integration. Poorly written. Does not cite any peer-reviewed sources.</p> <p><i>Post is less than 75 words.</i></p>	<p>Student cites 1 peer-reviewed source. Peer reviewed source was somewhat relevant and published within past 5 years.</p> <p><i>Post has between 75 - 124 words.</i></p>	<p>viewpoints without development of critical thought.</p> <p>Student cites 1 peer-reviewed source. Peer reviewed source is relevant and was published within past 3 years.</p> <p><i>Post has between 125- 200 words.</i></p>	<p>development is evidenced by thoughtful and meaningful responses. Student cites 1 peer-reviewed source, current and relevant publication. Published within past 3 years.</p> <p><i>Each student response exceeds 200 words.</i></p>

Participation – Students must meet initial and response post deadlines to be eligible for full points. Late initial posts may be accepted with a 33% reduction in the overall score assessed for each day late. Two response posts are required. If only one is received, then the overall score will be reduced by 25%. If no response posts are received, then the overall score will be reduced by 50%.

Assignment/Case Study/Course Project Rubric (70 points total)

Criteria	Minimal	Competent	Effective	Mastery
Pts Possible: 0 - 45 Critical & Clear Addresses the Problem/Issue presented directly. Demonstrates active critical thinking relevant to problem identification and effective solutions.	Pts Possible: 0 - 12 Work did not consistently meet expectations, as significant details of the assignment are not addressed. Lacks critical thought, analysis and application.	Pts Possible: 13- 25 Comprehension is not shown consistently throughout the assignment. Marginal responses; content, concepts, ideas/responses not fully developed.	Pts Possible: 26-39 Demonstrates satisfactory understanding but does not answer all questions/scenario in full. Demonstrates some knowledge of the content and business vocabulary.	Pts Possible: 40- 45 Relevant use of vocabulary applied throughout the assignment. Demonstrates superior knowledge of concepts and theories.

Criteria	Minimal	Competent	Effective	Mastery
Pts Possible: 0 – 25	Pts Possible: 0 - 9	Pts Possible: 10 - 14	Pts Possible: 15 - 19	Pts Possible: 20 - 25
Properly Written	Work does not meet expectations. Relevant critical thought/analysis is not demonstrated in the assignment. Partially addresses the topic. Does not follow APA 6 th edition.	Comprehension is not demonstrated. Grammar/spelling errors; unorganized deliverable. Lacks focus on content. Does not follow APA 6 th edition.	Organized deliverable, directions followed. Content needs additional focus for innovative responses other than restatement of text. Appropriate APA formatting is seen, but not extensive.	Relevant use of vocabulary and professional writing structure. Well-organized response of at least 1-full page that fully and completely addressed all the criteria/questions using proper APA 6 th edition formatting.
Structure and Writing include effective use of peer-reviewed resources and APA 6 th edition formatting.	No use of peer-reviewed resources. <500 words	Peer-reviewed resources are not current or are not effective. 600-750 words	Provides some relevant, current peer-reviewed resources. 751-999 words	Provides appropriate, relevant and current peer-reviewed sources as directed in the assignment. >1000 words

Problem/Short Answer Rubric Detail (50 Points Total)

Criteria	Levels of Achievement			
	Minimal	Competent	Effective	Mastery
Clarity	0 to 69 %	70 to 79 %	80 to 89 %	90 to 100 %
Weight 33.00%	Consistently below expectations; Lacks significant details of the assignment; Lacks critical thought, analysis, and application; Partially addresses the topic.	Inconsistent comprehension; Marginal responses; Content, concepts, ideas/responses are not fully developed.	Demonstrates satisfactory understanding; Lacks answer to all questions/full scenario; Demonstrates some knowledge of content and professional vocabulary; Content needs additional focus for innovative responses other than restatement of text.	Relevant use of vocabulary throughout; Demonstrates superior knowledge of concepts and theories; Addresses problem/issue directly; Demonstrates active critical thinking relevant to problem identification and effective solutions.
Depth	0 to 69 %	70 to 79 %	80 to 89 %	90 to 100 %
Weight 34.00%	Lacked detail that demonstrates active thought; One-sentence answer.	Provided enough detail for marginal requirement; “Textbook” in nature (restatement of what was in textbook).	Demonstrated some form of outside material used; Shows some critical thinking and active thought.	Articulates critical thoughts & analysis throughout the answer; Obvious use of outside resources to supplement resources.
Quality	0 to 69 %	70 to 79 %	80 to 89 %	90 to 100 %
Weight 33.00%	Unorganized and poorly written; 0 points for late assignments.	Lacks focus on content; Some writing errors.	Follows assignment instructions; Well-written; Few writing errors.	Professional writing structure; Well-organized response; Free of grammatical, spelling, & formatting errors.

