

Fall 2021

Meeting days: Thursday	Teacher: Matt Boyne
Meeting times: Th 6:00-8:45	Phone: 760.715-8071
Meeting location: Southwestern	E-mail: mboyne@pointloma.edu
Final Exam: Thursday December 16th	Office location and hours: In Class from 4:00-6:00 Before Class (Please email or text to schedule for other times. I'll work with you.)

PLNU Mission
To Teach ~ To Shape ~ To Send

Point Loma Nazarene University exists to provide higher education in a vital Christian community where minds are engaged and challenged, character is modeled and formed, and service becomes an expression of faith. Being of Wesleyan heritage, we aspire to be a learning community where grace is foundational, truth is pursued, and holiness is a way of life.

Fermanian School of Business Mission

Character – Professionalism – Excellence – Relationships – Commitment - Innovation

As members of a vital Christian community, we strive to provide high quality business programs that equip students to make a positive impact in their workplace and community by connecting purpose to practice.

COURSE DESCRIPTION

Intensive study in a special topic under the direction of a faculty member. May be repeated for a total of eight units.

Professor's note for the class: The class will take what is known as a "lean thinking" approach to operations, the supply chain and information systems in order to create business excellence. "Lean Thinking" approaches operations from the perspective of quality, continuous improvement, people-centric and steady flow of value to clients. Lean starts with the customer and works backwards building products and processes with the customers definition of lean in mind. This course provides an analysis of the information support systems which aid the manager in the decision-making process. Topics include supply chain, project and operations management, allocation of resources, planning and financial analysis.

COURSE LEARNING OUTCOMES

On completion of this class, students achieve the following Course Learning Outcomes (CLOs):

1. Exhibit an in-depth knowledge of operations management theory and methods (PLO1 & F1).
2. Evaluate and apply continuous process improvement methods (PLO 2 & F1).
3. Assess the competitive advantage of a business based on management concepts (PLO 2 & F2).
4. Prepare written reports and deliver presentations on operations management topics (PLO 3).
5. Formulate operations management decisions influenced by ethical considerations (PLO 4).

REQUIRED TEXTBOOKS AND RESOURCES

1. [Operations Management and Supply Chain Essentials \(Links to an external site.\)](#)(\$25)
2. [Operations Rules \(Links to an external site.\)](#) (\$20)... this book is also available electronically through Ryan Library. The link at Ryan Library is ... <https://ebookcentral-proquest-com.pointloma.idm.oclc.org/lib/pointloma-ebooks/detail.action?docID=3339161> (Links to an external site.)
3. [The Toyota Way Field Book \(Links to an external site.\)](#)(\$10)
4. A student digital subscription to the [Wall Street Journal \(Links to an external site.\)](#) (1 year \$24)
5. <https://www.allaboutlean.com/> (Links to an external site.) ... free website
6. <https://www.dbrmfg.co.nz/Overview%20Introduction.htm> (Links to an external site.) ... free
7. The weekly devotional on Course Resources ... <https://pray-as-you-go.org/>
8. Supplemental sources [Professor Bussom's Operations Management](#)

COURSE SCHEDULE AND ASSIGNMENTS

Assignments:

1. There will be an in class open book, open note mid-term and final worth 150 points each (30%) in Weeks 8 and 16.
2. Short Case Studies: There are six short case studies worth 50 points 5% or 300 points total, each found in Canvas (30%):
 - Week 3 (Due 9/19)
 - Week 6 (10/10)
 - Week 9 (10/31)
 - Week 12 (11/18)
 - Week 15 (12/12)
3. **Applied Research Project-Amazon versus Walmart (40%):**

The assignment is divided into 5 elements:

- 1: Due 10/3 by 11:59 PM (Week 5). What are value propositions? What are operational strategies? What are each companies' value propositions and operational strategies? (10%)
- 2: Due 10/24 11:59 PM (Week 8). What products and services do each company focus on as far as matching products, markets and strategies? How is procurement a competitive advantage? How do the companies manage risk? How do the companies achieve resilience? (10%)

3: Due 11/14 by 11:59 PM (Week 11). What processes for improvement and flexibility are used in order to better satisfy customers? How do the companies use Information Systems, Industry 4.0 and IoT technologies (10%).

4. Due 12/5 by 11:59 PM (Week 14) Final and Complete Submission. Include in the summary which company you think is a better operation and based on evidence, why? A rubric is provided in Canvas. (10%).

We'll devote 30-45 minutes in each class working on this assignment and using our time to research and outline the answers. APA format is required for this assignment in all submissions. You may partner and share as you like in preparation of the essay but the final submission must be your own work. If you are using a colleague's work as part of your submission, please cite accordingly.

The assignment prompt:

Amazon versus Walmart ... Who is doing better managing their operation relative to customer value proposition? Why? What data and facts support your position?

You will need to do additional research of the companies using published literature such as the Wall Street Journal, Industry Week, Barons Bloomberg, McKinsey and the 24/7 Supply Chain site. Then, based upon the theory and analysis please recommend a company between Amazon and Walmart for a long term, say 10-year, financial investment given the operational information uncovered. Please ensure you are creating evidence-based arguments, focused upon theoretical application of information and data.

The analysis, evaluation with supporting literature and conclusion should be about 10 pages (not including title and references) and be in APA format:

1. Value Proposition
2. Alignment of operational strategy to value proposition
3. Matching products, markets and strategies
4. Procurement methods
5. Risk management
6. Information systems and management
7. Operational excellence
8. Operational flexibility
9. Sustainability
10. Resiliency

	Grade scale:	
1. Mid-term – 150 Points	A=93-100	C=73-76
2. Amazon versus Walmart – 400 Points	A-=92-90	C-=70-72
3. 6 Short Case Studies – 300 Points	B+=87-89	D+=67-69
	B=83-86	D=63-66
4. Final Exam – 150 Points	B-=80-82	D-=60-62
	C+=77-79	F=0-59

INCOMPLETES AND LATE ASSIGNMENTS

All assignments must be submitted on the due date assigned. A 10% penalty will be assessed if one day late. A 20% penalty will be assessed if 2 days late, a 30% penalty if 3 or more days late. Incompletes will not be given except for emergency situations.

SPIRITUAL CARE

Please be aware PLNU strives to be a place where you grow as whole persons. To this end, we provide resources for our students to encounter God and grow in their Christian faith.

At the Mission Valley (MV) campus we have an onsite chaplain, Rev. Gordon Wong, who is available during class break times across the week. If you have questions for, desire to meet or share a prayer request with Rev. Wong you can contact him directly at mvchaplain@pointloma.edu or gordonwong@pointloma.edu. Rev. Wong's cell number is 808-429-1129 if you need a more immediate response.

In addition, on the MV campus there is a prayer chapel on the third floor which is open for use as a space set apart for quiet reflection and prayer.

FINAL EXAMINATION POLICY

Successful completion of this class requires taking the final examination on its scheduled day. No requests for early examinations or alternative days will be approved.

PLNU COPYRIGHT POLICY

Point Loma Nazarene University, as a non-profit educational institution, is entitled by law to use materials protected by the US Copyright Act for classroom education. Any use of those materials outside the class may violate the law.

PLNU ACADEMIC HONESTY POLICY

Students should demonstrate academic honesty by doing original work and by giving appropriate credit to the ideas of others. Academic dishonesty is the act of presenting information, ideas, and/or concepts as one's own when in reality they are the results of another person's creativity and effort. A faculty member who believes a situation involving academic dishonesty has been detected may assign a failing grade for that assignment or examination, or, depending on the seriousness of the offense, for the course. Faculty should follow and students may appeal using the procedure in the university Catalog. See [Academic Policies](#) for definitions of kinds of academic dishonesty and for further policy information.

PLNU ACADEMIC ACCOMMODATIONS POLICY

PLNU is committed to providing equal opportunity for participation in all its programs, services, and activities. Students with disabilities may request course-related accommodations by contacting the Educational Access Center (EAC), located in the Bond Academic Center (EAC@pointloma.edu or 619-849-2486). Once a student's eligibility for an accommodation has been determined, the EAC will issue an academic accommodation plan ("AP") to all faculty who teach courses in which the student is enrolled each semester.

PLNU highly recommends that students speak with their professors during the first two weeks of each semester/term about the implementation of their AP in that particular course and/or if they do not wish to utilize some or all of the elements of their AP in that course.

Students who need accommodations for a disability should contact the EAC as early as possible (i.e., ideally before the beginning of the semester) to assure appropriate accommodations can be provided. It is the student's responsibility to make the first contact with the EAC.

PLNU ATTENDANCE AND PARTICIPATION POLICY

Regular and punctual attendance at all class sessions is considered essential to optimum academic achievement. If the student is absent for more than 10 percent of class sessions, the faculty member will issue a written warning of de-enrollment. If the absences exceed 20 percent, the student may be de-enrolled without notice until the university drop date or, after that date, receive the appropriate grade for their work and participation.

USE OF TECHNOLOGY

In order to be successful in the online environment, you'll need to meet the minimum technology and system requirements; please refer to the [Technology and System Requirements](#) information. Additionally, students are required to have headphone speakers compatible with their computer available to use. If a student is in need of technological resources please contact student-tech-request@pointloma.edu. Problems with technology do not relieve you of the responsibility of participating, turning in your assignments, or completing your class work.

Schedule for Readings and Case Studies

8/30-Please read chapter 1 of Operations and Supply Chain Management (SCOM)

What happens when we don't manage our operations and supply chains well? https://www.youtube.com/watch?v=FP_g-as29x0

9/7-Read Chapters 1 and 2 of Operations Rules (OR)

9/16-Read Chapter 3 in OR and Chapter 3 in SCOM

Short Case Due 9/19: Week 3 Take Home Case Study Schedule: Airbus Tackles Procrastination Problem

<https://www.wsj.com/articles/airbus-tackles-its-procrastination-problem-1464082200> (Links to an external site.)

Summary: Plane maker had to work round-the-clock the past two Decembers to meet yearly jet-delivery targets.

Class Room Application: Students will explore the complexities of project scheduling and completion.

Questions:

- What factors make the construction of a large product such as an airplane especially challenging?

- What operations management tools do you suppose will be especially important for Airbus to improve their process?
- Based upon your reading of the article, how important is the design phase of a large-scale production project? What problems can be avoided in this phase of a project? How does a manager balance and justify the time and money spent on the initial design phase

9/23-Read Chapter 4 in SCOM and 4 in OR

9/30-Read [The Theory of Constraints Handout](#) download and the [Potato Chip Case Study](#)

Due 10/3 by 11:59 PM (Week 5). For Amazon and Walmart: What are value propositions? What are operational strategies? What are each companies' value propositions and operational strategies? (10%)

10/7- Read Chapters 5 and 6 of SCOM

Week 6 Take Home Case Inventory Management Inventory, Coronavirus and Grocers

<https://www.wsj.com/articles/grocers-stopped-stockpiling-food-then-came-coronavirus-11584982605> (Links to an external site.) and <https://www.wsj.com/articles/auto-makers-retreat-from-50-years-of-just-in-time-manufacturing-11620051251> (Links to an external site.) as additional information

Topics: Inventory | Just-In-Time Inventory Management

Summary: Grocers spent years implementing just-in-time inventory management systems, changing "...from keeping months of inventory on hand to holding only a four to six weeks' supply." That typical supply lasted only days as the impact of the coronavirus Covid-19 began and people stocked up "for weeks at home." General Mills is skipping steps in its supply chain process; grocery retailers "are overriding the sophisticated algorithms that say how much of what products they should buy...Instead, retail executives are making decisions in real time...."

Class Room Application: The article may be used in a managerial accounting course discussing just-in-time inventory management, economic order quantities, and the impact of the coronavirus.

Questions:

- What is a just-in-time inventory management system?
- What are the benefits of just-in-time purchasing? You may focus on those highlighted in the article but you may also discuss items mentioned in your textbook or other sources. Cite your source for this information.
- What are the key features required for successful implementation of a just-in-time inventory management system?
- What aspects of the just-in-time management system failed due to the Covid-19 coronavirus outbreak? Be specific on the impacts on features of the management system.

10/14-Week 7: The Supply Chain Read Chapters 7 and 8 of SCOM

10/21- Read Chapters 1-3 of The Toyota Way Field Book (TTW)

Mid-Term Open Book and Note in Class (15%)

Second Amazon and Walmart Submission Due 10/24 11:59 PM (Week 8). What products and services do each company focus on as far as matching products, markets and strategies? How is procurement a competitive advantage? How do the companies manage risk? How do the companies achieve resilience? (10%)

10/28- Read Chapters 4 and 5 of TTW

Week 9 (10/31) Take Home Case J.D. Power and Automotive Quality <https://www.wsj.com/articles/progress-on-new-car-quality-stalls-after-years-of-improvement-j-d-power-says-11560963634> (Links to an external site.)

Topics: Quality | Performance Measurement

Summary: After four years of steady improvement, new-vehicle quality leveled off within the past year as car companies continued to battle problems with both new and old technology, according to an annual survey of U.S. car buyers by research firm J.D. Power.

Class Room Application: Students will discuss the importance and difficulty of measuring quality.

Questions:

- How does the JD Power quality rankings measure quality?
- What alternative methods for measuring quality are available? How would you recommend measuring quality for a product as complex as an automobile?
- What are automobile manufacturers doing to improve quality rankings?
- How does your company measure internal quality? What mathematical tools do you use for evaluating quality levels? How could this measure be improved?
- How does your company measure external quality (with your customers)? What are the challenges of these measures? How is your company maintaining the accuracy of these measures? How could your company improve this measure of customer satisfaction?

11/4- Read Chapters 6-8 TTW

11/11- Read Chapters 9-11 TTW

Third Amazon and Walmart Assignment Due 11/14 by 11:59 PM (Week 11). What processes for improvement and flexibility are used in order to better satisfy customers? How do the companies use Information Systems, Industry 4.0 and IoT technologies (10%).

11/18- Read Chapter 12-14 of TTW

Week 12 (11/21) Take Home Case Efficiency versus Resilience

Topics: Strategic Management | Leadership | Strategic Planning

<https://www.wsj.com/articles/efficiency-isnt-the-only-economic-virtue-11583873155> (Links to an external site.)

Summary: Reflecting on the economic consequences of Covid-19, what if the relentless pursuit of efficiency, which has dominated American business thinking for decades, has made the global economic system more vulnerable to shocks? Research shows that this question is not original. Environmentalists, management gurus, and a economists all have explored the trade-off between efficiency and resilience. Consider an example in Harvard Business Review. Almonds once were grown in many places. But because some locations were better than others, and economies of scale were considerable, consolidation occurred. Soon California's Central Valley won out, and today more than 80% of the world's almonds are produced there. Although an efficient distribution of production, it has a drawback: "The almond industry designed away its redundancies, or slack,

and in the process lost the insurance that redundancy provides. One extreme local weather event could wipe out most of the world's production.”

Class Room Application: One thing a strategic leader should do is strike a balance between the efficiency of an organization and its resiliency (i.e., staying power in the face of uncertainty). This article provides an opportunity for faculty and students to analyze and discuss the classic argument about a leader's role in balancing efficiency and resiliency.

Questions:

- The tension between efficiency and resilience is ubiquitous. Much of modern business depends on air travel, which also speeds the spread of infectious diseases. Just-in-time production techniques minimize inventory inefficiencies. But they render businesses more vulnerable to supply disruptions. So do product designs that depend on sourcing parts across global supply chains. What are some strategic decisions a leader can make to strike a good balance between efficiency and resiliency?
- According to the article, the government must act as a counterweight to solve the collective-action problem of valuing efficiency at the expense of resiliency. Assuming this is true, what are some likely reasons that leaders of firms often do not properly invest in the resiliency of their organization?
- Assume the role of a key government leader (US President, Governor, Congressional Leader, etc.). Which industries do you think require a “government counterweight” to address the problem of market forces valuing efficiency vis-à-vis resiliency?

11/25-No Class Happy T-Day!

12/2- Read Chapters 15-18 TTW

Due 12/5 by 11:59 PM (Week 14) Final and Complete Submission. Include in the summary which company you think is a better operation and based on evidence, why? A rubric is provided in Canvas. (10%).

12/9- Read Chapters 19-20 TTW

Week 15 (12/12) Take Home Case Global Supply Chains <https://www.wsj.com/articles/everywhere-you-look-the-global-supply-chain-is-a-mess-11616019081> (Links to an external site.)

Summary: Extreme weather in Texas and port backlogs in 2021 have combined to cause disruptions to supply chains for cars, clothing, and other products. Shortages of semiconductors and raw materials are causing production delays and higher prices for many consumer goods.

Class Room Application: Markets use prices to ration scarce resources. When the market price for a product is equal to the equilibrium price the product is rationed to those consumers who are willing to pay this price. When a shortage occurs the market price for a product is less than the equilibrium price.

Questions:

- From the article: “Samsung...said a severe global shortage in semiconductors would hurt its business into the next quarter... the co-chief executive officer of Samsung, told investors... that dealing with the chip supply-demand imbalance had become a priority for staff...” Explain what you believe Samsung's

co-chief executive officer meant in referring to a “supply-demand imbalance” for semiconductors. In your response explain how a supply-demand imbalance would be corrected.

- Briefly explain how markets ration scarce resources and the goods and services made from these resources.
- Draw and label a graph that depicts a demand curve and a supply curve for hospital gowns. Identify the equilibrium price and quantity in the graph.
- In the article the chief executive of Summit Plastics states: “We’ve been scrambling to get enough raw material’... Summit Plastics... makes plastic sheeting for everything from hospital gowns to packaging...”. Refer to the graph you drew to answer the previous question. Explain how the graph can be used to illustrate the impact of a decrease in the availability of plastic sheeting used to make hospital gowns.
- From the article: “Federal Reserve Chairman Jerome Powell said...that he expects supply chains to adjust as economic growth accelerates. ‘It’s very possible... that you will see bottlenecks emerge and then clear over time... These are not permanent. It’s not like the supply side will be unable to adapt to these things...the market will clear. It just may take some time.’” Briefly explain how the “supply side” of a bottleneck (that is, a shortage) adjusts to clear a market.
- From the article: “Toyota cited a petrochemicals shortage for curtailments at its factory in Kentucky, where it builds the Camry and Avalon sedans and the hybrid version of its RAV4 sport-utility vehicle.” Briefly explain how the following would change to eliminate a shortage of petrochemicals: (a) the price of petrochemicals; (b) the quantity demanded of petrochemicals; (c) the quantity supplied of petrochemicals.

12/16-In Class Final

