

SP 25

Meeting days: Monday Wednesday	Instructor title and name: Matt Boyne
Meeting times: 1:30-2:45	Phone: 760.715-8071
Meeting location: FSB 103	E-mail: mboyne@pointloma.edu
Final Exam: May 7, 2025 1:30-4:00	Office location and hours: FSB 130 T, TH, F 11:00-1:00
Additional info:	Additional info: Please call for additional hours.

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 is an expression of faith. Being of Wesleyan heritage, we strive 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®

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 ®

The student who successfully completes this course will be able to:

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 2, 3, 4)

REQUIRED TEXTS AND RECOMMENDED STUDY RESOURCES

1. Pande, P. S., Neuman, R. P., & Cavanagh, R. R. (2014). *The Six Sigma way: how GE, Motorola, and other top companies are honing their performance*. (2nd ed.). New York, McGraw-Hill.
2. [Tableau for Students](#) – Required (free)
3. [Operations Management in the Supply Chain](#) 2024 Release
4. [Agile, Lean, Six Sigma Management Tools](#)

Lomabooks Instructions for Students[Ⓢ]:

For both digital and print materials, please add these student instructions to your syllabus and Canvas Course. Prior to the start of class, the PLNU Bookstore will also be sharing student instructions in a standalone email on how to access their content.

This course is part of our course material delivery program, LomaBooks. The bookstore will provide each student with a convenient package containing all required physical materials; all digitally delivered materials will be integrated into Canvas.

You should have received an email from the bookstore confirming the list of materials that will be provided for each of your courses and asking you to select how you would like to receive any printed components (in-store pick up or home delivery). If you have not done so already, please confirm your fulfillment preference so the bookstore can prepare your materials.

For more information about LomaBooks, please go: [HERE](#)

ASSESSMENT AND GRADING [Ⓢ]

Homework 550 Points (55%)	<u>Sample grade scale:</u>	
Case Study Analysis with DMAIC 250 Points (25%)	A=93-100	C=73-76
	A-=90-92	C-=70-72
	B+=87-89	D+=67-69
Management Exit Exam 50 Points (5%)	B=83-86	D=63-66
	B-=80-82	D-=60-62
Final Presentation/Defense 150 Points (15%)	C+=77-79	F=0-59

INCOMPLETES AND LATE ASSIGNMENTS

All assignments are to be submitted/turned in by the beginning of the class session when they are due—including assignments posted in Canvas. Incompletes will only be assigned in extremely unusual circumstances.

ARTIFICIAL INTELLIGENCE (AI) POLICY

You are allowed to use Artificial Intelligence (AI) tools (e.g., ChatGPT, Gemini Pro 1.5, GrammarlyGo, Perplexity, etc.) in this course. Any work that utilizes AI-based tools must be clearly identified as such, including the specific tool(s) used. Please use the appropriate sources from APA to guide your citations when using AI.

CONTENT WARNING

I acknowledge that each of you comes to PLNU with your own unique life experiences. This contributes to the way you perceive various types of information. In [class name], all of the class content, including that which may be intellectually or emotionally challenging, has been intentionally curated to achieve the learning goals for this course. The decision to include such material is not taken lightly. These topics include [list topics]. If you encounter a topic that is intellectually challenging for you, it can manifest in feelings of discomfort and upset. In response, I encourage you to come talk to me or your friends or family about it. Class topics are discussed for the sole purpose of expanding your intellectual engagement in the area of [subject/major], and I will support you throughout your learning in this course.

TRIGGER WARNING

I acknowledge that each of you comes to PLNU with your own unique life experiences. This contributes to the way you perceive several types of information. In [class name], we will cover a variety of topics, some of which you may find triggering. These topics include [list topics]. Each time this topic appears in a reading or unit, it is marked on the syllabus. The experience of being triggered versus intellectually challenged are different. The main difference is that an individual must have experienced trauma to experience being triggered, whereas an intellectual challenge has nothing to do with trauma. If you are a trauma survivor and encounter a topic in this class that is triggering for you, you may feel overwhelmed or panicked and find it difficult to concentrate. In response, I encourage you to take the necessary steps for your emotional safety. This may include leaving class while the topic is discussed or talking to a therapist at the Counseling Center. Should you choose to sit out on discussion of a certain topic, know that you are still responsible for the material; but we can discuss if there are other methods for accessing that material, and for assessing your learning on that material. Class topics are discussed for the sole purpose of expanding your intellectual engagement in the area of [subject/major], and I will support you throughout your learning in this course.

LANGUAGE AND BELONGING

Point Loma Nazarene University faculty are committed to helping create a safe and hospitable learning environment for all students. As Christian scholars we are keenly aware of the power of language and believe in treating others with dignity. As such, it is important that our language be equitable, inclusive, and prejudice free. Inclusive/Bias-free language is the standard outlined by all major academic style guides, including MLA, APA, and Chicago, and it is the expected norm in university-level work. Good writing and speaking do not use unsubstantiated or irrelevant generalizations about personal qualities such as age, disability, economic class, ethnicity, marital status, parentage, political or religious beliefs, race, gender, sex, or sexual orientation. Inclusive language also avoids using stereotypes or terminology that demeans persons or groups based on age, disability, class, ethnicity, gender, race, language, or national origin. Respectful use of language is particularly important when referring to those outside of the religious and lifestyle commitments of those in the PLNU community. By working toward precision and clarity of

language, we mark ourselves as serious and respectful scholars, and we model the Christ-like quality of hospitality.

If you (or someone you know) have experienced a bias incident regarding language, you can find more information on reporting and resources at www.pointloma.edu/bias.

LOMA WRITING CENTER

The Loma Writing Center exists to help all members of the PLNU community cultivate transferable writing skills to engage their academic, professional, personal, and spiritual communities. We work toward this goal by conducting one-on-one consultation sessions, supporting writing education across the PLNU community, and participating in ongoing writing center research.

Getting feedback from the Loma Writing Center while you're in the process of working on an assignment is a great way to improve the quality of your writing and develop as a writer. You are encouraged to talk with a trained writing consultant about getting started on an assignment, organizing your ideas, finding and citing sources, revising, editing for grammar and polishing final drafts, and more. For information about how to make in-person or online appointments, see [Loma Writing Center webpage](#) or visit the Loma Writer Center on the first floor of the Ryan Library, room 221.

- Appointment Calendar: <https://plnu.mywconline.com/>
- Website: <https://www.pointloma.edu/centers-institutes/loma-writing-center>
- Email: writingcenter@pointloma.edu

SEXUAL MISCONDUCT AND DISCRIMINATION

In support of a safe learning environment, if you (or someone you know) have experienced any form of sexual discrimination or misconduct, including sexual assault, dating or domestic violence, or stalking, know that accommodations and resources are available through the Title IX Office at pointloma.edu/Title-IX. Please be aware that under Title IX of the Education Amendments of 1972, faculty and staff are required to disclose information about such misconduct to the Title IX Office.

If you wish to speak to a confidential employee who does not have this reporting responsibility, you can contact Counseling Services at counselingservices@pointloma.edu or find a list of campus pastors at pointloma.edu/title-ix.

If you (or someone you know) have experienced other forms of discrimination or bias, you can find more information on reporting and resources at www.pointloma.edu/bias

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.

If students have questions, a desire to meet with the chaplain or have prayer requests you can contact your professor or the [Office of Spiritual Life and Formation](#).

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 Recording Notification©

In order to enhance the learning experience, please be advised that this course may be recorded by the professor for educational purposes, and access to these recordings will be limited to enrolled students and authorized personnel.

Note that all recordings are subject to copyright protection. Any unauthorized distribution or publication of these recordings without written approval from the University (refer to the Dean) is strictly prohibited.

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. For all student appeals, faculty and students should follow the procedures outlined 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 in accordance with the Americans with Disabilities Act (ADA). 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 work with the student to create an Accommodation Plan (AP) that outlines allowed accommodations. The EAC makes accommodations available to professors at the student's request.

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. Accommodations are not retroactive so clarifying with the professor at the outset is one of the best ways to promote positive academic outcomes.

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. Students cannot assume that because they had accommodations in the past, their eligibility at PLNU is automatic. All determinations at PLNU must go through the EAC process. This is to protect the privacy of students with disabilities who may not want to disclose this information and are not asking for any special accommodations.

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 an "F" grade.

FINAL EXAMINATION POLICY

Successful completion of this class requires taking the final examination on its scheduled day. The final examination schedule is posted on the [Traditional Undergraduate Records: Final Exam Schedules](#) site. If you find yourself scheduled for three (3) or more final examinations on the same day, you are authorized to contact each professor to arrange a different time for one of those exams. However, unless you have three (3) or more exams on the same day, no requests for alternative final examinations will be granted.

COURSE SCHEDULE AND ASSIGNMENTS

Week 1: Introduction to Operations

Dates:

- **Monday, January 13, 2025 (1:30 PM - 2:45 PM)**
- **Wednesday, January 15, 2025**

Readings:

- Chapter 1: Introduction to Operations and Supply Chain Management

Topics Covered:

- Assignments and Policies
- Overview of operations management
- The role of operations in an organization
- The concept of supply chain management

Week 2: Operations Strategy

Dates:

- **Monday, January 20, 2025 (Holiday, no class)**
- **Wednesday, January 22, 2025**

Readings:

- Chapter 2: Operations Strategy

Topics Covered:

- Operations as a competitive advantage
- Aligning operations strategy with business strategy
- The four major competitive priorities: cost, quality, time, flexibility

Homework Quiz #1 Due January 29, 2025 (50 Points)

Week 3: Product Development

Dates:

- **Monday, January 27, 2025**
- **Wednesday, January 29, 2025**

Readings:

- Chapter 3: Product and Process Design

Topics Covered:

- The product development process
- Product design and innovation
- How to manage product complexity

Homework Quiz # 2 Due February 5, 2025 (50 Points)

Week 4: Traditional Project Management

Dates:

- **Monday, February 3, 2025**
- **Wednesday, February 5, 2025**

Readings:

- Chapter 13: Project Management

Topics Covered:

- Project Lifecycle
- Project Planning
- Project Budget

- Project Execution and Control

Homework Quiz # 3 Due February 12, 2025 (25 Points)

Week 5: Agile Project Management and Product Development

Dates:

- **Monday, February 10, 2025**
- **Wednesday, February 12, 2025**

Readings:

- [Agile Scrum Guide](#)
- Chapter 3 Concurrent Engineering

Topics Covered:

- Introduction to Agile Management
- Understanding roles, ceremonies and artifacts
- Key performance indicators (KPIs) for agile project management

Homework Quiz: Quiz # 4 Due February 19, 2025 (50 Points)

Week 6: Process Management

Dates:

- **Monday, February 17, 2025**
- **Wednesday, February 19, 2025**

Readings:

- Chapter 6 and Supplemental Handouts on Process Mapping

Topics Covered:

- Techniques for process mapping (e.g., SIPOC diagrams, flowcharts)
- Identifying inefficiencies in processes
- Using process maps to diagnose problems

Homework Quiz: Quiz #5 Due February 26, 2025 (50 Points)

Week 7: Process Improvement

Dates:

- **Monday, February 24, 2025**
- **Wednesday, February 26, 2025**

Readings:

- Chapter 7

Topics Covered:

- Tools for process improvement (e.g., DMAIC, Kaizen, Value Stream Mapping)
- Measuring process performance
- Implementing process improvements

Homework Quiz: Quiz # 6 Due March 5, 2025 (50 Points)

Week 8: Service Process Management and Improvement

Dates:

- **Monday, March 3, 2025**
- **Wednesday, March 5, 2025**

Readings:

- Chapter 5 and Supplemental Handouts

Topics Covered:

- Advanced process management techniques for services
- Continuous improvement and sustaining process changes
- Real-world case studies in process management and improvement-Sage Brook Case Study

Homework Quiz: Quiz # 7 Due March 19, 2025 After Break (50 Points)

Week 9: Spring Break

Dates:

- **Monday, March 10, 2025**

- **Wednesday, March 12, 2025**

No classes, spring break

Week 10: Capacity Analysis

Dates:

- **Monday, March 17, 2025**
- **Wednesday, March 19, 2025**

Readings:

- Chapter 12 and 14 Capacity and Scheduling Theory of Constraints

Topics Covered:

- Capacity Analysis
- Theory of Constraints
- Scheduling

Homework Quiz: Quiz # 8 Due March 26, 2025 (50 Points)

Week 11: Lean Thinking and Systems with Six Sigma

Dates:

- **Monday, March 24, 2025**
- **Wednesday, March 26, 2025**

Readings:

- Chapter 7: Lean Systems Review
- Value Stream Mapping Handouts
- Chapter 9 Intro to Six Sigma

Topics Covered:

- Lean implementation in manufacturing and service environments with DMAIC
- Lean supply chains and value creation
- Lean versus Six Sigma

Homework Quiz: Quiz # 9 Due April 2, 2025 (50 Points)

Week 12: Supply Chain Management

Dates:

- **Monday, March 31, 2025**
- **Wednesday, April 2, 2025**

Readings:

- Chapter 16: Supply Chain Management

Topics Covered:

- Overview of supply chain management
- Supply chain design and strategy
- Managing supply chain risks and performance

Homework Quiz: Quiz # 12 April 9, 2025 (50 Points)

Week 13: The Six Sigma Way – Introduction to Six Sigma

Dates:

- **Monday, April 7, 2025**
- **Wednesday, April 9, 2025**

Readings:

- *The Six Sigma Way*, Chapters 1–3

Topics Covered:

- Introduction to Six Sigma and its history
- The DMAIC process (Define, Measure, Analyze, Improve, Control)
- Key principles of Six Sigma methodology

Homework: Case Study Introduction, Define Stage and Current Performance Visualization Due April 16, 2025 (50 Points)

Week 14: Six Sigma – Define and Measure Phases

Dates:

- **Monday, April 14, 2025**
- **Wednesday, April 16, 2025**

Readings:

- *The Six Sigma Way*, Chapters 4–6

Topics Covered:

- The Define phase: Project selection, charter development, and problem definition
- The Measure phase: Data collection, process mapping, and performance metrics
- The Pareto Method

Homework Quiz: Case Study Measure Stage and Pareto Visualization Due April 23, 2025 (50 Points)

Week 15: Six Sigma – Analyze and Improve Phases

Dates:

- **Monday, April 21, 2025**
- **Wednesday, April 23, 2025**

Readings:

- *The Six Sigma Way*, Chapters 7–9

Topics Covered:

- The Analyze phase: Data analysis, root cause analysis, and hypothesis testing
- The Improve phase: Solution design, pilot testing, and implementation
- Scatter Plots and the Coefficient of Determination

Homework Quiz: Case Study Analyze and Improve Phase Due April 30, 2025 (50 Points)

Management Exit Exam: April 25 and 26, 2025 (50 Points)

Week 16: Six Sigma – Control Phase and Summary

Dates:

- **Monday, April 28, 2025**
- **Wednesday, April 30, 2025**

Readings:

- *The Six Sigma Way*, Chapters 10–12

Topics Covered:

- The Control phase: Process control and sustaining improvements
- Earned Value Management
- Gantt Charts

Homework: Case Study Control Phase and Summary with Dashboard (50 Points)

Week 17: Final Exam (15%)

Date:

- **Wednesday, May 7, 2025 (1:30 PM - 3:30 PM)**

Content: Oral review of the DMAIC case study. The final exam is designed to prepare you for your participation as a project team member. The exercise will simulate a briefing you have been assigned to give to a program manager. The deliverables for the briefing are a 1-page executive summary and dashboard for the DMAIC case, and the entire case study write up. The program manager will take 5 minutes to review the summary and then have 5 minutes to discuss and ask questions. If needed corrective actions will be assigned and another meeting will be scheduled. The oral presentation/defense is 50 points, the 1-page executive summary is 50 points, the final write up and submission is 50 points