

**Spring 2026**

<b>Meeting days:</b> Monday and Wednesday	<b>Instructor:</b> Professor of Data Analytics, Thea Copeland, MBA
<b>Meeting times:</b> 1:30 to 2:45 pm	<b>Phone:</b> (760) 653-6140
<b>Meeting location:</b> FSB 104	<b>E-mail:</b> tcopelan@pointloma.edu
<b>Final Exam:</b> Friday, 5/8/25, 1:30 to 4 pm	<b>Office location and hours:</b> FSB 135, Mon and Wed 12:15 to 1:15 pm, Upon Request - <a href="#">Schedule Office Hours with Professor Copeland</a>

*Table 1 Course Information*

**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 explores how leaders can use data to inform the decision-making process. Topics include identifying the right information, eliminating bias, understanding predictive analytics, data visualization, communicating uncertainty, and addressing challenges to your data. An emphasis is placed on basic methods of gathering, analyzing, and communicating data.

**COURSE LEARNING OUTCOMES**

The student who completes this course will be able to:

1. Define “big data” and the increasing role of evidence-based decision making to support executive decision making (PLO 1).
2. Explain the differences between predictive, prescriptive, and descriptive analytics, and the organizational questions that can be answered with each approach (PLO 1).
3. Examine processes of gathering, analyzing, visualizing, and communicating data (PLO 1, 2, 3).
4. Demonstrate an understanding of the principles of analytics using examples from a variety of organizational functions and industries (PLO 2, A2, G2).

5. Recognize the ethical implications of collecting, managing, and using data for managers and leaders (PLO 4).

## **REQUIRED TEXTS AND RECOMMENDED STUDY RESOURCES**

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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](#)

### Required Software:

- Microsoft Excel – [Load the Analysis ToolPak in Excel](#)
  - The Analysis ToolPak will support various statistical analysis applications throughout the course.
- Tableau Public – [Sign Up Here](#)
  - Students will use Tableau Public, a data visualization platform, to complete multiple labs, homework, and exams.
- Trailblazer Account – [Sign Up Here](#)
  - Students will gain access to the Salesforce Trailhead learning platform after creating a Trailblazer Account. Salesforce, Tableau's parent company, developed learning modules specific to Tableau. Students will earn 15 Trailhead badges throughout this course.

### Optional Resources:

This text is optional. If you prefer to have a book that walks you through how to use Tableau, this is a good resource. The same information can be found online through Tableau user groups, blogs, video tutorials, and other training resources.

- Loth, A., Vogel, N., & Sparkes, S. (2019). *Visual analytics with tableau*. John Wiley & Sons. ISBN: 978-1-119-56020-3

Students are responsible for having the required course textbooks prior to the first day of class. All supplemental materials posted on this course site (including articles, book excerpts, or other documents) are provided for your personal academic use. These materials may be protected by copyright law and should not be duplicated or distributed without permission of the copyright owner.

## ASSESSMENT AND GRADING

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Grades will be based on the following:

Assignments & Exams	Quantity	Points Each	Points Total	Grading Scale
Reading Quizzes	10	10	100	A=93-100
In-Class Labs & Exercises	25	10	250	A-=90-92
Homework	10	25	250	B+=87-89
Group Project	1	100	100	B=83-86
Module Exam 1	1	100	100	B-=80-82
Module Exam 2	1	100	100	C+=77-79
Final Exam	1	100	100	C=73-76
<b>Total Points</b>			1,000	C-=70-72 D+=67-69 D=63-66 D-=60-62 F=0-59

*Table 2 Assignment Distribution and Grade Scale*

**Reading Quizzes: (10 points each)**

The purpose of the quizzes is to prepare you for class discussions, lectures, and labs by reading the textbook and familiarizing yourself with core course concepts. Quizzes are given during the first 10 minutes of class.

**In-Class Labs & Exercises: (10 points each)**

During class, we will spend a significant amount of time solving hands-on data problems in Tableau and Excel. Typically, the labs take 20 to 30 minutes to complete. The labs introduce and reinforce fundamental data analytics skills.

**Homework: (25 points each)**

Homework assignments reinforce skills learned during in-class labs while developing your ability to succinctly and effectively communicate the process and results of your data analysis.

**Group Project: (100 points)**

In groups of three to four, you will create a 15-minute presentation that applies data analytics methods and storytelling with data fundamentals.

**Exams: (100 points each)**

This course consists of three exams. The first exam, Module One Exam, focuses on descriptive and diagnostic analytics. The second exam, Module Two Exam, prioritizes predictive and prescriptive analytics. The Final Exam is an accumulative exam that allows you to demonstrate your comprehensive understanding of data-driven decision making.

## **INCOMPLETES AND LATE ASSIGNMENTS**

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All assignments are to be submitted by the due date indicated in Canvas. Late assignments are not accepted. Late work will not be accepted for credit except in the following University-sanctioned circumstances: illness (with doctor's note), death, university-sponsored field trip or activity, military obligation, or religious holiday. There are no makeup quizzes or exams.

## **FINAL EXAMINATION POLICY**

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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.

## **ARTIFICIAL INTELLIGENCE (AI) POLICY**

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Each assignment in this course includes specific guidelines on the use of Artificial Intelligence (AI). Generally, you are allowed to use AI tools (e.g., ChatGPT, Gemini, GrammarlyGo, Perplexity, etc) to generate ideas, but the use of AI tools to generate content (data files, charts, graphs, tables, text, video, audio, images) is limited. These guidelines are designed to support you in building AI skills while developing core data analytics skills, considering ethical issues, and avoiding plagiarism.

### Permitted:

AI tools can be used to support idea generation, debug analytical models, perform rote data scrubbing, or support understanding of complex topics. Why? You want to practice using AI to augment your work and help you work more efficiently.

*Homework and Group Project:* These assignments will include specific guidelines for AI use.

### Restricted:

Absolutely no AI-generated Excel spreadsheets, Tableau workbooks, or written content will be included in your submissions. All submissions will be originally created by you. Why? You must develop fundamental analytical skills and understand how to operate and troubleshoot with data analysis tools.

*Labs:* AI tools are prohibited. The datasets used in the in-class labs are copyrighted. It is forbidden to enter this proprietary content into public AI tools. The in-class labs are opportunities to practice hands-on applications for data analytics. Each lab includes detailed written instructions and a video tutorial.

*Exams and Quizzes:* AI Tools are prohibited. Exams and quizzes provide opportunities to demonstrate your skills and critical thinking in data analytics.

### AI Citations:

Students must provide a copy of the AI-generated work along with the proper citation. The AI-generated work is not sufficient. You must "own" the work by making revisions that align with the specific assignment objective(s), and it must be clear that your final submission is uniquely your "own" work. Credit will not be given for work that is AI-generated, without evidence of your "human touch." Any work that uses AI-based tools must be clearly cited in accordance with APA 7th edition guidelines. Here are guidelines and an example of a proper citation:

## [APA Style: How to Cite ChatGPT](#)

OpenAI. (2024). ChatGPT (version 3.5) [Large language model]. Retrieved from <https://chat.openai.com/chat>

### AI Plagiarism:

Plagiarism is defined as using or taking credit for someone or something else's work without permission or acknowledgment. If you use AI tools to generate work in this course and do not properly cite it, this constitutes plagiarism and will be reported to the university as an Academic Integrity violation. In addition to reporting plagiarism to the university, students who use AI to generate work and fail to cite it properly will receive a grade of zero on the submitted assignment.

## **LANGUAGE AND BELONGING**

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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 other forms of discrimination, you can find more information on reporting and resources at [www.pointloma.edu/nondiscrimination](http://www.pointloma.edu/nondiscrimination).

## **LOMA WRITING CENTER**

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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](mailto:writingcenter@pointloma.edu)

## **SEXUAL MISCONDUCT AND DISCRIMINATION**

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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](http://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](mailto:counselingservices@pointloma.edu) or find a list of campus pastors at [pointloma.edu/title-ix](http://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](http://www.pointloma.edu/bias)

## **SPIRITUAL CARE**

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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**

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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**

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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**

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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**

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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](mailto:EAC@pointloma.edu) or 619-849-2533). 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. Professors are able to view a student's approved accommodations through Accommodate.

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 accommodations.

#### **PLNU ATTENDANCE AND PARTICIPATION POLICY**

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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.

## COURSE SCHEDULE AND ASSIGNMENTS

WK  Date	Class Content	Homework
WK1 01/12	<b>Quiz #1:</b> Survey - All About Me Introductions & Course Overview Access MS Excel, Tableau, Labq	<b>HW #1:</b> Tableau Trail - Tour the Tableau Environment, Build Your Data Literacy (4.3 hours) Due Tuesday 01/20 @ Midnight
WK1 01/14	Storytelling with Data   Design Best Practices GenAI and Data Analytics	
WK2 01/19	<b>Martin Luther King Jr. Day</b>	<b>HW#2:</b> Data Visualization Using Tableau Due Sunday 01/25 @ Midnight
WK2 01/21	<b>Quiz #2:</b> Ch 1 Analytics Ascendancy Model SOAR Report Overview	
WK3 01/26	<b>Quiz #3:</b> Ch 1 SOAR Report <b>Lab:</b> 1.2 & 1.3 Excel Assessing Customer and Product (SKU) Profitability	<b>HW #3:</b> Tableau Trail - Build Your Data Literacy (3.3 hours) Due Sunday 02/01 @ Midnight
WK3 01/28	<b>Lab:</b> 1.2 & 1.3 Tableau Assessing Customer and Product (SKU) Profitability	
WK4 02/02	<b>Quiz #4:</b> Tableau Data Types <b>Lab:</b> 2.1 Excel Identify and Work with Different Types of Data	<b>HW #4:</b> SOAR Report Lab 2.4 Aggregating and Visualizing Different Data Types Due Sunday 02/08 @ Midnight
WK4 02/04	<b>Lab:</b> 2.2 & 2.3 Tableau Prep Data, Conduct Prelim Exploratory Analysis	
WK5 02/09	<b>Quiz #6:</b> Ch 6 Chart and Graph Types <b>Lab:</b> 6.1 & 6.4 Excel Pivot Table Sparklines and Splicers	<b>HW #5:</b> Tableau Trail - Learn Data for AI (1.5 hour) Due Sunday 02/15 @ Midnight
WK5 02/11	<b>Lab:</b> 6.5 Tableau Creating a Dashboard	
WK6 02/16	<b>Quiz #5:</b> Ch 3 Descriptive Analytics <b>Lab:</b> 3.1 & 3.2 Excel Functions, Toolpak	<b>HW #6:</b> SOAR Report Data for Good Due Sunday 02/22 @ Midnight
WK6 02/18	<b>Lab:</b> 3.5 Excel Regression Activity Based Costing	
WK7 02/23	<b>Quiz #6:</b> Ch 3 Regression Analysis Lab: 4.1 & 4.2 Excel Inventory, Bank Reconciliation	<b>HW #7:</b> SOAR Report Sales Transactions Due Sunday, 03/01 @ Midnight
WK7 02/25	<b>Lab:</b> 4.3 Excel Benford's Law, 8.3 Excel Using Fuzzy Matching to Look for Fraud	
WK8 03/02	Quiz #7: Ch 4 Diagnostic Analytics Module 1 Exam Review	
WK8 03/04	<b>Module 1 Exam</b>	
WK# 03/09	<b>Spring Break 2026</b>	

WK9 03/16	Storytelling with Data, Group Project Kickoff	<b>HW #8:</b> Tableau Trail - Tell Stories with Data Using Tableau Public (4.3 hours) Due Monday 11/03 @ Midnight
WK9 03/18	Regression Analysis Exercise	
WK10 03/23	<b>Quiz #8:</b> Ch 5 Predictive Analytics Techniques <b>Lab:</b> 5.1 Excel Sales & R&D Linear Relationship, 5.2 Excel Sales & R&D Non-Linear Relationship Group Project Deliverable #1: Specify the Question	<b>HW #9:</b> Storytelling with Data Due Sunday, 03/29 @ Midnight
WK10 03/25	<b>Lab:</b> 5.4 Tableau Forecasting Product Demand Using Time Series Analysis, 5.6 Excel Product Demand Linear Regression	
WK11 03/30	<b>Quiz #9:</b> Ch 5 Different Types of Analytics <b>Lab:</b> 5.7 Excel Return on Education	
WK11 04/01	Module 2 Exam Review Group Project Deliverable #2 Obtain the Data	
WK12 04/06	<b>Easter Recess</b>	
WK12 04/08	<b>Module 2 Exam</b>	
WK13 04/13	Pictionary Charts and Graphs Group Project Deliverable #3: Analyze the Data	<b>HW #10:</b> Real Estate Dashboard Due Monday 12/08 @ Midnight
WK13 04/15	Guest Speaker	
WK14 04/20	<b>Quiz #10:</b> Ch 11 Advanced Analytics	
WK14 04/22	Final Exam Review	
WK15 04/27	Group Presentations	
WK15 04/29	Group Presentations	
<b>WK16 05/04</b>	<b>Final Exam</b>	

Table 3 Course Schedule and Assignments