Point Loma Nazarene University, Spring 2026
Introduction to Statistics
Department of Mathematical, Information, and Computer Science – School of STEM

Professor: Dr. Catherine Crockett	**Course:** Math 2003	**Units:** 3
Office: Rohr Science 222	**Days:** Tuesday and Thursday	**Classroom:** LS 201
Phone: (619) 849-2723	**Email:** **catherinecrockett@pointloma.edu**	**Time:** 1:00 – 2:15 pm

Final Exam: The final exam is administered at the following time in the liberty station main conference room:
Friday, December 18th from 7:30am to 10:00am

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.

Department Mission: The Mathematical, Information, and Computer Sciences department at Point Loma Nazarene University is committed to maintaining a curriculum that provides its students with the tools to be productive, the passion to continue learning, and Christian perspectives to provide a basis for making sound value judgments.

Course Description: A first course in statistics for the general student. Description of sample data, probability theory, theoretical frequency distributions, sampling, estimation, and hypothesis testing. Not applicable toward a major in mathematics.

Office Hours: Located in Rohr Science. Here is the link to my calendar for office hours:

https://calendar.app.google/xcMdaXtAVVy1ELAu5

*Please email me if you need a different time for office hours.

Program and Course Learning Outcomes: Upon completion of this course:

1. Students will be able to apply their technical knowledge to solve problems.
2. Students will be able to compute measures of central tendency for data.
3. Students will be able to compute measures of dispersion for data.
4. Students will be able to use statistical methods to test hypotheses.
5. Students will be able to understand and create arguments supported by quantitative evidence, and they can clearly communicate those arguments in a variety of formats.

Class Performance: Your final grade in this course is calculated by the following system.

30%	Final Exam	A cumulative exam covering all the course material.
35%	Exam Average	Based on two in-class exams. See the good attendance policy.
15%	Written Homework	Traditional homework from the book. Problems graded randomly.
10%	Lab Assignments	Average score of the seven Excel guided application labs.
5%	Lab Final	A short in-person lab final on statistics using Excel.
5%	Class Activities & Participation	In-class group activities graded on completeness and correctness & attending class.

Required Materials: You should have the required course materials by the end of the **first day of class**.

1. The textbook: *The Basic Practices of Statistics*, 9th Edition (ISBN: 9781319244378)
2. A scientific or graphing calculator to use during class time (*Note*: A scientific calculator model TI-30XIIS will be provided for you to use on exams. You may not use your own calculator.)
3. A laptop with access to Canvas and Microsoft Excel (*Note*: Instructions to download Excel are posted in Canvas)

Letter Grade: The letter grade you receive in this course is based on the final percentage score you earned in the previously described weighted grading system. Requests for an opportunity to improve your grade due to personal circumstances will be denied. Incompletes are only assigned in extremely unusual circumstances.

A	B	C	D	F
A [92.5-100]	B+ [87.5-90)	C+ [77.5-80)	D+ [67.5-70)	F [0-60)
A- [90-92.5)	B [82.5-87.5)	C [72.5-77.5)	D [62.5-67.5)	
	B- [80-82.5)	C- [70-72.5)	D- [60-62.5)	

Final Exam: 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.

Exams and the Final Exam: Exams and the Final Exam will include problems and questions over material assigned in the text, readings and handouts, as well as material presented in class. No exam shall be missed without a well-documented emergency beyond your control. A score of zero will be assigned for an exam that is missed without a well-documented emergency beyond your control.

Late work will not be accepted. Homework assignments that are submitted late will be recorded with a score of zero. During the course, you may find that you are unable to submit homework on time due to a personal situation (for example, a personal or family illness, accident, business trip, etc.). For this reason, your lowest homework score and your lowest lab score will be dropped. There are no exceptions to this policy, so please use your dropped assignments wisely.

Written Homework: Written homework problems are assigned from the textbook and are submitted to Canvas. The problems are to be done by hand with pencil and paper or stylus and tablet. The due dates are posted in Canvas. Typically, homework is due by the end of each week and you should have at least one week to work on homework related to a topic as it is covered during class time. Each problem set will consist of anywhere from five to twenty questions. A random sample approximately five questions will be graded for correctness by a student grader, and the rest will be graded based on completion. Written assignments uploaded to Canvas should be well organized and submitted as a single PDF file. You are responsible for ensuring your submissions can be viewed by the grader. If your submission is illegible or causes an error it will receive a zero. I encourage you to work together on your homework, but directly copying a solutions manual or another student's homework is considered plagiarism and will not be tolerated. Copying solutions from AI or from a computer algebra system is also considered academic plagiarism.

Lab Assignments: Each lab assignment is a write up that outlines your completion of the lab. Labs are completed in Microsoft Excel, but your submission is a lab write up where you answer the variety of questions in a word document. You must bring your laptop to class on the lab days. Labs are submitted to Canvas as a single PDF file, never just an Excel booklet. Each lab has a guided section and an application section. The guided section will teach you how to use Excel to calculate statistics and the application section will ask you to apply what you learn. There is dedicated class time to work on the labs with your classmates and your professor. **The labs are individual assignments**. Collaboration between students is encouraged but copying the lab reports of others is not tolerated. Even if you work together, you should be using your own words, your own spreadsheet, and your own screenshots when necessary. If you submit the same workbook screenshots or have the same write-up as another student you will get a zero.

Lab Final: The lab final will occur the last week of class and will be a short test of your Excel comprehension. You are required to bring your laptop to class on that day.

Artificial Intelligence Policy: The use of Artificial Intelligence (AI) tools (e.g., ChatGPT, Gemini Pro, GrammarlyGo, Perplexity, etc.) is prohibited in the course for any aspect of your work, including idea generation, drafting, editing, or final submissions. This course is designed to assess your independent critical thinking, writing, and research skills without the assistance of AI technologies. Any reliance on AI tools in this course is subjective to an academic honesty violation.

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, by email or phone at 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 approved 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 approved accommodations in that particular course. Accommodations are not retroactive; as such, 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-related need should contact the EAC as early as possible (i.e., ideally before the beginning of the semester) to assure appropriate accommodations can be provided. In

accordance with ADA, accommodations cannot constitute a fundamental alteration to course outcomes; therefore, planning ahead is vital in establishing appropriate accommodations for equal access to this course. 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 eligibility 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.

LomaBooks Instructions for Students: 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 LomaBooks materials.

Additional Course Information: Additional PLNU policies and practices that apply to this course can be found at the following link:
https://docs.google.com/document/d/1SoL5YMfCv_5cobhBwrDjbcZJzNKKTCfM/edit?usp=sharing&ouid=104297418648613020764&rtpof=true&sd=true

Course Schedule: This course syllabus and schedule are subject to change due to unforeseen circumstances.

	week	**Tuesday**	**Thursday**	**What's due**
September	1	1 Course Introduction Chapter 1: Picturing Distributions	3 Lab #1 & Chapters 1-2 Numerical Stats	Intro Quiz and Photo Name Slide
	2	8 Chapter 2: Describing Data & Misuses	10 Lab #2: Chapters 1-2 Summarizing Data	Lab #1
	3	15 Chapter 4: Scatterplots and Correlation	17 Chapters 4 -5 Linear Regression	Written Homework Ch 1-2 Lab #2
	4	22 Chapters 5-6 Comparison & Two-Way Tables	24 Lab #3: Chapters 4-6 Relationship between Variables	Written Homework Ch 4- 5
	5	29 Chapter 3 Introduction to Normal Distribution	1 Chapter 3: Normal Distribution and Z-tables	Lab #3
October	6	6 Lab #4 & Review for Exam #1	8 Exam #1	Written Homework CH 6, 3
	7	13 Chapters 8 &9 Sampling and Experiments	15 Chapter15 The Central Limit Theorem	Lab #4
	8	20	22	Written Homework CH 8-9

		Chapters 15- 16 Confidence Intervals	No Class- Fall Break	
	9	27 Chapters 16-17 Hypothesis Tests	29 Chapters 17-18 Statistical Inference in Practice	Written Homework CH. 15-16
November	10	3 Chapter 20 T-Distributions	5 Lab #5 & Chapter 20	Written Homework CH.17
	11	10 Review for Exam #2	12 Exam #2	Lab #5 Written Homework CH. 18-20
	12	17 Chapter 21 Two-Sample T-Tests	19 Chapter 22 Proportions & Statistical Inference	
	13	24 Chapter 27 & Lab #6	26 No class- Thanksgiving	Written Homework CH. 21 - 22
December	14	1 Chapter 23 Two Sample Proportions	3 Lab #7 & Chapter 25 More than Two Samples- Chi ^2	Lab #6
	15	8 Review for final	10 Lab Final	Lab #7 Written Homework CH 23, 25, 27
	Finals week	**Final Exam, Friday 7:30 to 10:00 am (December 18)**		