Point Loma Nazarene University, Fall 2026

Introduction to Statistics

Department of Mathematical, Information, and Computer Science – School of STEM

Professor: Kyle Havens	**Course:** Math 2003	**Section:** 3	**Units:** 3
Office: Rohr Science 288	**Days:** Tuesday and Thursday	**Class Time:** 9:00am-10:15am	
Phone: (619) 849-3362	**Email:** kylehavens@pointloma.edu	**Classroom:** LS 202	

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. Professor Havens has open office hours at the following times:

Monday	Tuesday	Wednesday	Thursday	Friday
7:30-8:15am	2:00-2:45pm	11:00am-12:15pm	2:00-2:45pm	11:00am-12:15pm
9:45-11:00am			*4:45-5:45pm	

*Times marked by an asterisk are by appointment only and may be on Zoom. Please book a 20-minute appointment with Professor Havens at least 24-hours in advance.

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. Details on next page.

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.
10%	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.
8%	Class Activities	In-class group activities graded on completeness and correctness.
2%	Participation	Based on participation in activities in the classroom.

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)

Good Attendance: A student with no more than one unexcused absence is defined to have "good attendance." An excused absence must be discussed with Professor Havens before the absence.

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. Borderline grades may be rounded up if student has good attendance. Incompletes are only assigned in extremely unusual circumstances.

[92%,100%]: A	[82%,88%): B	[70%,78%): C
[90%,92%): A-	[80%,82%): B-	[68%,70%): C-
[88%,90%): B+	[78%,80%): C+	[60%,68%): D

Final Exam: Successful completion of this class requires taking the final examination on its scheduled day. The final examination schedule is posted on the PLNU's 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: There are two examinations, each covering roughly six weeks of content. See the course schedule for more information. A scientific calculator will be provided on the exam; you may not use your own calculator. One 8.5"x11" page of notes will be allowed on each exam. Smart devices, such as phones, watches, and glasses, are not allowed on the exam. No make-up exams are allowed without prior consent. Contact me **before** missing an exam if you have a critical emergency. If you do not inform me that you will be missing an exam you will get a zero on that exam. Exams must be made up within then week or will be scheduled during the department make-up on the morning of Saturday, December 12th. Exams are weighted equally at 17.5% of your total grade. If you have good attendance, I will adjust the weighted scale of the exams in your favor, 22.5% for the highest exam and 12.5% for the lowest. Practice questions will be posted on Canvas prior to the exam designed to help you identify topics that you need to study further.

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.

Class Activities: Mathematics requires active participation. Participation means asking questions, taking notes, making conjectures and checking them, providing solutions to problems, and sharing ideas with classmates. I will act as the expert facilitator during class time, with a mixture of lecture, group problem solving, use of technology, and guided activities. You will receive credit for your participation during class time by using the sign-in sheet. A student who is present but not engaged with their classmates during the activities may lose participation points. You are to work on the assignments in your groups and submit them to Canvas by the last day of lecture on the subject. These may be fully graded or you may get credit for completion, depending on the activity.

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.

Late Work: A maximum of one assignment from each category (written homework, class activities, lab) can be turned in late subject to a 10% penalty as long as the assignment is submitted before the corresponding exam. Other late work (which includes blank, illegible, or erroneous files) is not accepted. If you have a documented emergency that might require you to submit any additional late work, contact me before the assignment deadline regarding your emergency.

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 of	Tuesday	Thursday	Due Soon
8/31/2026	Lecture: Intro and Chapter 1 *Picturing Distributions*	*Lab 1 & Lecture: Chapters 1-2 *Numerical Stats & Lab 1*	Survey, Intro Quiz, Materials Photo Name Slide
9/7/2026	Lecture: Chapter 2 *Describing Data & Misuses*	*Lab 2: Chapters 1-2 *Summarizing Data*	Class Activity #1 Excel Lab #1
9/14/2026	Lecture: Chapter 4 *Scatterplots and Correlation*	Lecture: Chapter 4-5 *Linear Regression*	Written Homework Ch1-2 Excel Lab #2
9/21/2026	Lecture: Chapter 5-6 *Comparison & Two-Way Tables*	*Lab 3: Chapters 4-6 *Relationships between Variables*	Class Activity #2 Written Homework Ch4-5
9/28/2026	Lecture: Chapter 3 *Intro to the Normal Distribution*	Lecture: Chapter 3 *Normal Distribution and Z-Tables*	Class Activity #3 Excel Lab #3
10/5/2026	*Lab 4 & Revew: Chapter 3 *Relating Data to Z-Distributions*	***Exam #1***	Written Homework Ch6,3
10/12/2026	Lecture: Chapter 8-9 *Sampling and Experiments*	Lecture: Chapter 15 *The Central Limit Theorem*	Class Activity #4 Excel Lab #4
10/19/2026	Lecture: Chapter 15-16 *Confidence Intervals*	*NO CLASS* *Fall Break*	Class Activity #5 Written Homework Ch8-9
10/26/2026	Lecture: Chapter 16-17 *Hypothesis Tests*	Lecture: Chapter 17-18 *Statistical Inference in Practice*	Class Activity #6 Written Homework Ch15-16
11/2/2026	Lecture: Chapter 20 *T-Distributions and Tests*	*Lab 5 & Lecture Chapter 20 *Intervals and Tests in Excel*	Class Activity #7 Written Homework Ch17
11/9/2026	Review: Chapters 8-9, 15-20 *Inference Using Z & T Distributions*	***Exam #2***	Excel Lab #5 Written Homework Ch18-20
11/16/2026	Lecture: Chapter 21 *Two-Sample T-Tests*	Lecture: Chapter 22 *Proportions & Statistical Inference*	Class Activity #8
11/23/2026	Online Lab 6 & Lecture: Chapter 27 *More than Two Samples - ANOVA*	*NO CLASS* *Thanksgiving Break*	Written Homework Ch21-22
11/30/2026	Lecture: Chapter 23 *Two Sample Proportions*	*Lab 7 & Lecture: Chapter 25 *More than Two Samples - Chi^2*	Class Activity #9 Excel Lab #6
12/7/2026	Lecture: All Chapters *Catch Up & Review for Final*	***Lab Final***	Excel Lab #7 Written Homework Ch23,25,27
12/14/2026	*Finals Week*	***Final Exam*** *Friday Dec. 18th @ 7:30am*	*Finals Week*