

Point Loma Nazarene University

Department of Mathematical, Information and Computer Sciences

MAT1093 Basic Statistics

3 Units

Spring 2025

January 13 - May 11

Online Synchronous

Meeting Days: Wednesdays

Meeting Times: 6 - 7:30 PM

Meeting Location: Online

Final Exam: (Day/Time): 6:00-8:30 PM Wednesday

Instructors: Prof. Rachel Cherian

Email: rhudlow@pointloma.edu

Phone: Zoom

Office Location and Hours: By appointment

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.

Course Description

MAT 1093 Basic Statistics (GE) (3 Units)

This course is an introduction to the concepts and techniques of elementary statistics including descriptive statistics, sampling distributions, confidence intervals, hypothesis testing, correlation, and regression. Data analysis tools will be used.

Letter grade.

Prerequisite(s): [MAT 1001](#) or equivalent.

Course Learning Outcomes

The following student learning outcomes will be met in 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.
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General Education Learning Outcome

The following general education learning outcome will be met in this course: GELO 1e. Quantitative Reasoning: Students will be able to solve problems that are quantitative in nature.

Signature Assignment for assessing this outcome: Questions on the final exam.

Required Texts and Recommended Study Resources

The Basic Practice of Statistics, 9 ed. by Moore, Notz and Fligner

You will also need to have access to the Microsoft Excel.

Note: Students are responsible for having the required textbooks prior to the first day of class. Students are also encouraged to begin reading the books in preparation for the class as soon as possible.

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. 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.

Course Credit Hour Information

In the interest of providing sufficient time to accomplish the stated Course Learning Outcomes, this class meets the PLNU credit hour policy for a 3-unit class delivered over 16 weeks. It is anticipated that students will spend a minimum of 37.5 participation hours per credit hour on their coursework. For this course, students will spend an estimated 112.5 total hours meeting the course learning outcomes. The time estimations are provided below and in the Canvas modules.

Table Showing Course Hour Allocation

Category	Time Expectation in Hours
Required Reading	15
Watching Videos, Video Notes and Warm-Up Exercises	22.5
Class Meetings	22.5
Homework Assignments	22.5
Labs	15
Exam Preparation	15
Total Hours	112.5

Assessment and Grading

Weighted Grades

This course uses weighted grades. Each assignment category is worth a certain percentage of the total grade (100%) for the course, as specified in the table below:

Grading Distribution	Percent
Video Notes	5

Warm Up Questions	5
Written Homework	15
Labs	10
Exams (2 15% each)	30
Lab Final Exam	5
Final Exam	25
Introduction and Class Participation	5
Total	100

- **Video Notes and Warm Up Questions:** Each week you will have some videos to watch. You will be expected to complete these videos and upload your notes. You will all be expected to do a collection of warm-up problems related to the videos. These will be due on Tuesday night.
- **Labs:** You will have a collection of labs that will help you to learn how to use Excel for data analysis. The labs will be due on Monday night.
- **Written Homework:** Homework will be assigned each week and the homework will be due on Monday night.
- **Examinations and the Final Examination.** Examinations and the Final Examination will include problems and questions over material assigned in the text, readings and handouts, as well as material presented in class. No examination shall be missed without prior consent or a well-documented emergency beyond your control. A score of zero will be assigned for an examination that is missed without prior consent or a well-documented emergency beyond your control. The final exam date and time is set by the university at the beginning of the semester and may not be changed by the instructor. No requests for early examinations will be approved. Only in the case that a student is required to take three exams during the same day of finals week, is an instructor authorized to consider changing the exam date and time for that particular student. There will also be a Lab Final. The dates for all exams are shown in the modules and class schedule.
- **Introduction and Class Participation.** There is a brief introductory assignment that is part of Week 1 that will allow you to introduce yourselves to each other. This component of the grade also includes your attendance and participation in the synchronous class meetings.

Student grades for assignments will be posted in the Canvas gradebook no later than midnight on Tuesday of each week beginning in Week Two of this course. It is important to read the comments posted in the gradebook as these comments are intended to help students improve their work. Final grades will be posted by the due date as posted in the Academic Calendar.

Grading Scale

The following grading scale will be used for all exams and final course grades:

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)	

Incompletes and Late Assignments

All assignments are to be submitted by the due dates. There will be a 10% reduction of possible points for **each day** an assignment is late, and assignments will **not be** accepted for credit four days after the due date. If missing assignments result in the failure to meet learning outcomes, you may receive a letter grade reduction on the final grade in addition to the loss of points for missing work. Assignments will be considered late if posted after the due date and time using Pacific Standard Time. No assignments will be accepted after midnight on Sunday night, the last day of class.

Exceptions for extenuating circumstances must be pre-approved by the instructor and the program director.

PLNU Spiritual Care

PLNU strives to be a place where you grow as a whole person. To this end, we provide resources for our Graduate and Adult Undergraduate students to encounter God and grow in their Christian faith. At the Mission Valley (MV) campus we have an onsite chaplain who is available during class break times across the week. If you have questions or a desire to meet or share any prayer requests with the onsite chaplain, you may email Dr. Sylvia Cortez Masyuk at scortezm@pointloma.edu.

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.

State Authorization

State authorization is a formal determination by a state that Point Loma Nazarene University is approved to conduct activities regulated by that state. In certain states outside California, Point Loma Nazarene University is not authorized to enroll online (distance education) students. If a student moves to another state after admission to the program and/or enrollment in an online

course, continuation within the program and/or course will depend on whether Point Loma Nazarene University is authorized to offer distance education courses in that state. It is the student's responsibility to notify the institution of any change in his or her physical location. Refer to the map on [State Authorization](#) to view which states allow online (distance education) outside of California.

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 [Adult Undergraduate Academic and General Policies](#) for definitions of kinds of academic dishonesty and for further policy information.

During the first week of class, you will be asked to submit an Academic Honesty Verification Statement. Submitting the statement is a requirement of this course. By submitting the Academic Honesty Verification Statement, you will be verifying all assignments completed in this course were completed by you. Carefully review the Academic Honesty Statement below.

Statement: “In submitting this form, I am verifying all the assignments in this course will be completed by me and will be my own work.”

Artificial Intelligence (AI) Policy

Use of Artificial Intelligence (AI) tools (e.g, ChatGPT, iA Writer, Marmot, Botowski) to generate content (text, video, audio, images) that will end up in any work submitted to be graded for this course is not permitted. Use of these tools will be treated as plagiarism. If you have any questions about using AI, please discuss this with the instructor.

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 ensure 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.

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.

Sexual Misconduct and Discrimination

Point Loma Nazarene University faculty are committed to helping create a safe learning environment for all students. 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 help and support are available through the [Title IX Office](#). Please be aware that under Title IX of the Education Amendments of 1972, it is 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 via our [Sexual Harassment and Discrimination Policy](#).

If you (or someone you know) have experienced other forms of discrimination or bias, you can find more information on reporting and resources via our [Nondiscrimination and Anti-harassment Policy](#).

PLNU Attendance and Participation Policy

Regular and punctual attendance at all class sessions is considered essential to optimum academic achievement. Therefore, regular attendance and participation in each course are minimal requirements.

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 withdrawal date or, after that date, receive an “F” grade.

Students who anticipate being absent for an entire week of a course should contact the instructor in advance for approval and make arrangements to complete the required coursework and/or alternative assignments assigned at the discretion of the instructor. Acceptance of late work is at the discretion of the instructor and does not waive attendance requirements.

Refer to [Academic Policies](#) for additional details.

Synchronous Attendance/Participation Definition

For synchronous courses that have specific scheduled meeting times (including in-person, hybrid, and synchronous online courses), absences are counted from the first official meeting of the class regardless of the date of the student's enrollment. For courses with specific attendance requirements, those requirements are outlined in the course syllabus.

Note: For synchronous courses with an online asynchronous week, refer to the Online Asynchronous Class Attendance policy listed below.

Online Asynchronous Attendance/Participation Definition

Students taking online courses with no specific scheduled meeting times are expected to actively engage throughout each week of the course. Attendance is defined as participating in an academic activity within the online classroom which includes, but is not limited to:

- Engaging in an online discussion
- Submitting an assignment
- Taking an exam
- Participating in online labs
- Initiating contact with faculty member within the learning management system to discuss course content

Note: Logging into the course does not qualify as participation and will not be counted as meeting the attendance requirement.

Course Modality Definitions

1. Online Courses: These are courses with class meetings where all instruction and interaction are fully online.
 1. Synchronous Courses: At least one class meeting takes place at a designated time.
 2. Asynchronous Courses: All class meetings are asynchronous.
2. Hybrid Courses: These are courses with class meetings that take place both in the classroom and online synchronously and/or asynchronously.
3. In-Person Courses: These are courses that meet in person with the instructor and students in a physical classroom setting. With approval by the area dean, this may include up to

25% of qualified class interactions through a Learning Management System (such as Canvas).

Use of Technology

In order to be successful in the online or hybrid 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, microphone, or webcams compatible with their computer available to use. Please note that any course with online proctored exams requires a computer with a camera (tablets are not compatible nor allowable) to complete exams online.

Problems with technology do not relieve you of the responsibility of participating, turning in your assignments, or completing your class work.

GPS Academic Resources

PLNU offers the following free academic resources virtually for Graduate Professional Studies (GPS) Students. Visit myPLNU through the links below for more information.

- [The GPS Writing Center](#) offers:
 - **Zoom Writers Workshops** offered each quad on a variety of helpful topics
 - **One-to-one appointments** with the Writing Coach
 - **Microlearning YouTube Video Library** for helpful tips anytime
 - [Research Help Guide](#) to help you start your research
 - The physical office is located on the third floor of the [Mission Valley Regional Center](#) off the student lounge
 - [Academic Writing Resources Course](#): Found on your Canvas Dashboard, this course is non-credit with 24/7 access, no time limits, and self-paced content. [Watch a quick video run-through](#) and take time now to explore!
 - [Grammarly](#): Students have unlimited FREE access to Grammarly for Education, a trusted tool designed to help enhance writing skills by providing real-time feedback, identifying areas for improvement, and providing suggestions. Grammarly's Generative AI is NOT available with our student accounts.
 - [Tutoring](#): Students have access to 24/7 live or scheduled subject tutoring through Tutor.com, including a Paper Drop-Off Service with feedback within 12 hours.
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Assignments-at-a-Glance

The course summary below lists our assignments and their due dates. Click on any assignment to review it.

Course Summary:

Date	Details	Due
Mon Jan 13, 2025	Quiz Academic Honesty Verification Statement	due by 11:59pm
	Discussion Topic Wk 1 Introduction Video Discussion	due by 11:59pm
Wed Jan 15, 2025	Calendar Event MAT1093-1 SP25 - Basic Statistics (GE)	6pm to 7:30pm
	Page WK1 Class Meeting	to do: 6pm
Mon Jan 20, 2025	Assignment Introductory Lab	due by 11:59pm
Tue Jan 21, 2025	Assignment Video Notes: Chapters 1 and 2	due by 11:59pm
	Assignment Warm Up Questions Chapters 1 and 2	due by 11:59pm
Wed Jan 22, 2025	Calendar Event MAT1093-1 SP25 - Basic Statistics (GE)	6pm to 7:30pm
	Page WK2 Class Meeting	to do: 6pm
Mon Jan 27, 2025	Assignment Lab 1	due by 11:59pm
	Assignment Written Homework - Chapters 1 and 2	due by 11:59pm
Tue Jan 28, 2025	Assignment Video Notes Chapters 4, 5 and 6	due by 11:59pm

Date	Details	Due
	Assignment Warm Up Questions Chapters 4, 5 and 6	due by 11:59pm
Wed Jan 29, 2025	Calendar Event MAT1093-1 SP25 - Basic Statistics (GE)	6pm to 7:30pm
	Page WK3 Class Meeting	to do: 6pm
Mon Feb 3, 2025	Assignment Lab 2	due by 11:59pm
	Assignment Written Homework - Chapters 4, 5 and 6	due by 11:59pm
Tue Feb 4, 2025	Assignment Video Notes Chapters 8 and 9	due by 11:59pm
	Assignment Warm Up Questions Chapters 8 and 9	due by 11:59pm
Wed Feb 5, 2025	Calendar Event MAT1093-1 SP25 - Basic Statistics (GE)	6pm to 7:30pm
	Page WK4 Class Meeting	to do: 6pm
Mon Feb 10, 2025	Assignment Lab 3	due by 11:59pm
	Assignment Written Homework - Chapters 8 and 9	due by 11:59pm
Tue Feb 11, 2025	Assignment Video Notes Chapter 3	due by 11:59pm
	Assignment Warm Up Questions Chapter 3	due by 11:59pm
Wed Feb 12, 2025	Calendar Event MAT1093-1 SP25 - Basic Statistics (GE)	6pm to 7:30pm

Date	Details	Due
	Page WK5 Class Meeting	to do: 6pm
Mon Feb 17, 2025	Assignment Lab 4	due by 11:59pm
	Assignment Written Homework - Chapter 3	due by 11:59pm
Wed Feb 19, 2025	Calendar Event MAT1093-1 SP25 - Basic Statistics (GE)	6pm to 7:30pm
	Page WK6 Class Meeting	to do: 6pm
	Assignment Exam 1	due by 7:40pm
Tue Feb 25, 2025	Assignment Video Notes Chapters 15 and 16	due by 11:59pm
	Assignment Warm Up Questions Chapters 15 and 16	due by 11:59pm
Wed Feb 26, 2025	Calendar Event MAT1093-1 SP25 - Basic Statistics (GE)	6pm to 7:30pm
	Page WK7 Class Meeting	to do: 6pm
Mon Mar 3, 2025	Assignment Lab 5	due by 11:59pm
	Assignment Written Homework - Chapters 15 and 16	due by 11:59pm
Tue Mar 4, 2025	Assignment Video Notes Chapters 17 and 18	due by 11:59pm
	Assignment Warm Up Questions Chapters 17 and 18	due by 11:59pm

Date	Details	Due
Wed Mar 5, 2025	Calendar Event MAT1093-1 SP25 - Basic Statistics (GE)	6pm to 7:30pm
	Page WK8 Class Meeting	to do: 6pm
Mon Mar 17, 2025	Assignment Written Homework - Chapters 17 and 18	due by 11:59pm
	Assignment Lab 6	due by 11:59pm
Tue Mar 18, 2025	Assignment Video Notes Chapter 20	due by 11:59pm
	Assignment Warm Up Questions Chapter 20	due by 11:59pm
Wed Mar 19, 2025	Calendar Event MAT1093-1 SP25 - Basic Statistics (GE)	6pm to 7:30pm
	Page WK10 Class Meeting	to do: 6pm
Mon Mar 24, 2025	Assignment Lab 7	due by 11:59pm
	Assignment Written Homework - Chapter 20	due by 11:59pm
Tue Mar 25, 2025	Assignment Video Notes Chapters 21 and 27	due by 11:59pm
	Assignment Warm Up Questions Chapters 21 and 27	due by 11:59pm
Wed Mar 26, 2025	Calendar Event MAT1093-1 SP25 - Basic Statistics (GE)	6pm to 7:30pm
	Page WK11 Class Meeting	to do: 6pm
Mon Mar 31, 2025	Assignment Lab 8	due by 11:59pm

Date	Details	Due
	Assignment Written Homework - Chapters 21 and 27	due by 11:59pm
Wed Apr 2, 2025	Calendar Event MAT1093-1 SP25 - Basic Statistics (GE)	6pm to 7:30pm
	Page WK12 Class Meeting	to do: 6pm
	Assignment Exam 2	due by 7:35pm
Tue Apr 8, 2025	Assignment Video Notes Chapters 22 and 23	due by 11:59pm
	Assignment Warm Up Questions Chapters 22 and 23	due by 11:59pm
Wed Apr 9, 2025	Calendar Event MAT1093-1 SP25 - Basic Statistics (GE)	6pm to 7:30pm
	Page WK13 Class Meeting	to do: 6pm
Mon Apr 14, 2025	Assignment Written Homework - Chapters 22 and 23	due by 11:59pm
Tue Apr 15, 2025	Assignment Video Notes Chapter 25	due by 11:59pm
	Assignment Warm Up Questions Chapter 25	due by 11:59pm
Wed Apr 16, 2025	Calendar Event MAT1093-1 SP25 - Basic Statistics (GE)	6pm to 7:30pm
	Page WK14 Class Meeting	to do: 6pm
Mon Apr 21, 2025	Assignment Lab 9	due by 11:59pm

Date	Details	Due
	Assignment Written Homework - Chapter 25	due by 11:59pm
Wed Apr 23, 2025	Calendar Event MAT1093-1 SP25 - Basic Statistics (GE)	6pm to 7:30pm
	Assignment Warm Up Questions for Review	due by 6pm
	Page WK15 Class Meeting	to do: 6pm
Mon Apr 28, 2025	Assignment End-of-Course Evaluation	due by 11:59pm
	Assignment Lab 10	due by 11:59pm
Wed Apr 30, 2025	Calendar Event MAT1093-1 SP25 - Basic Statistics (GE)	6pm to 7:30pm
	Page WK16 Class Meeting	to do: 6pm
	Assignment Lab Final	due by 7:30pm
	Quiz Lab Final Exam	due by 7:35pm
Wed May 7, 2025	Calendar Event MAT1093-1 SP25 - Basic Statistics (GE)	6pm to 7:30pm
	Page WK17 Class Meeting	to do: 6pm
	Assignment Final Exam	due by 8:35pm
	Assignment Class Participation	due by 11:59pm