

# Syllabus

 <p><b>POINT LOMA</b> NAZARENE UNIVERSITY</p>	<p><b>Fundamentals of Elementary Mathematics II</b></p> <p><b>Spring 2024 - Math 2023 - 3 Units</b></p> <p><b>Tuesdays and Thursdays, 2:30-3:45pm, LBRT 207</b></p> <p><b>Department of Mathematical, Information &amp; Computer Sciences</b></p>
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<p><b>Instructor:</b> Professor Kyle Havens</p>
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<p><b>Office hours:</b> Email me to check! M 9:30-10:30am, WF 7:30-8:20am in my office. MW 12:10-1pm, Th 2-2:30pm in RS207.</p> <p><b>Final exam date and time:</b> Thursday, May 2nd, 4:30-7pm in RLC 108</p>

**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 continuation of Mathematics 2013 focusing on additional knowledge necessary for a California multiple-subject teaching credential (K-8). Topics covered in this course include data analysis and statistics, probability, combinations and permutations, simulations as well as standard and non-standard measurement. Planar and three dimensional geometry and geometric constructions are studied, including an algebraic approach to geometry. This class is highly interactive and emphasizes group work and cooperative learning.

Prerequisite: MTH 1013 or equivalent, MTH2013 (3 Units) Fundamentals of Elementary Mathematics I.

### **COURSE LEARNING OUTCOMES**

- Students will be able to demonstrate a facility with operations on the integers.
- Students will be able to demonstrate a facility with operations on the rational numbers.
- Students will be able to apply concepts from number theory to solve problems.

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

*A Problem Solving Approach to Mathematics for Elementary School Teachers*, 12<sup>th</sup> Edition, by Billstein, Libeskind, and Lott.

Needed Supplies: A calculator, a compass, a protractor, a ruler, and access to a computer.

### **COURSE DESIGN**



- The course is designed to help you acquire knowledge and develop understanding of the conceptual and procedural foundations for teaching elementary school mathematics
- The course is designed to help you develop the ability to teach mathematics developmentally (i.e., basing procedural knowledge on clear connections with prior conceptual knowledge)
- The course is designed to help you acquire knowledge and develop ability to create a problem solving environment in the classroom, to set and achieve teaching goals, to stimulate and manage classroom discourse, to use technology effectively, and to make ongoing instructional decisions
- The course is designed to help you acquire confidence sufficient to teach elementary mathematics positively and enthusiastically

## **PHILOSOPHY AND APPROACH**

Research in learning theory shows that students who learn mathematics effectively must be actively involved in the process, not just passive listeners/observers. In particular, in order to really learn and understand mathematical ideas and processes you must become deeply involved in activities such as exploring, discussing, analyzing, explaining, conjecturing, defending, negotiating, testing, and evaluating. To do this you need good problems to solve, interaction with others on solutions, and opportunities to write your conclusions.

The mathematical experience of the students in MTH2013 and MTH2023 varies widely. This means that different students will need to spend different amounts of time to learn the material. To help assist in this process, the class is designed as a blended class.

## **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 fifteen weeks. Specific details about how the class meets the credit hour requirement can be provided upon request. (Based on 37.5 hours of student engagement per credit hour.)

## **ASSESSMENT AND GRADING**

### **Graded Components**



- **Video Notes** - Each section will have videos to watch and you should take notes. Your notes will be submitted in Canvas to provide evidence you are keeping up. Up to a maximum of one set of video notes will be accepted up to 3 days late provided that consent is received from the professor before it is due. Video notes that are submitted late without prior consent will be recorded with a score of zero. If you submit plausible notes for 90% or more of the assignments, you will receive full credit. If you submit plausible notes for 80% to 90%, you will receive half credit. If more than 20% of your video notes are either not present or not plausible, then you will receive no credit for video notes. Your video notes are due at 11:59 pm on Wednesday evening.
- **Video Warm Up Exercises** – These problems will be a check for your understanding of the basic information in the videos. They are either written out on paper or done in a canvas quiz. If done on paper, work the problems carefully, take a photograph of them and submit them online by Wednesday at 11:59 pm (the same time that your video notes are due).
- **Written Homework** – You may work with other people on your homework, but each individual will be responsible for writing up the entire homework assignment and turning it in. The homework is due at the start of class on Thursday.
- **Mid-Semester Examination and the Final Examination:** There will be one Mid-Semester Examination and a comprehensive Final Examination. The Mid-Term Examination 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. The examination schedule is included in the daily schedule. No examination shall be missed without prior consent or a well-documented emergency beyond your control. In such cases, all make-up exams will occur at 8:30 am on the Saturday between classes and the Final Exam week. A score of zero will be assigned for an examination that is missed without prior consent or a well-documented emergency beyond your control.
- **Late work will not be accepted** without prior consent or a well-documented emergency. Homework assignments that are submitted late without prior consent will be recorded with a score of zero. If more than half of the homework assignments (written or online) are submitted on time, then the lowest homework score will be dropped from the calculations of the homework grade (written or online).
- Homework assignments that are submitted late without prior consent will be recorded with a score of zero. If more than half of the homework assignments are submitted on time, then the lowest homework score will be dropped from the calculations of the homework grade.
- **The examination schedule** is included in the daily schedule. This instructor does not intend to accept excuses such as poor communication with parents, benefactors, surf team sponsors and/or travel agents.

Grade components

Grading Distribution	Percent
Mid Semester Exam	25
Final Exam	35



Videos and Notes	7
Video Warm Up Exercises	5
Class Activities	8
Written Homework	20
Total	100

## Grading Scale

Grades are based on the number of points accumulated throughout the course with the following exception. A student must pass at least one of the Mid-Semester Examination or the Final Examination in order to pass the class. That is, a score of 60% must be achieved on one of the Examinations, or else the final grade will be an F regardless of all other point totals. Approximate minimal percentages required to obtain a given grade are:

<b>Standard Grade Scale Based on Percentages</b>					
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>F</b>
<b>+</b>		87.5- 90	77.5-80	67.5-70	
	92.5 -100	82.5-87.5	72.5-77.5	62.5 -67.5	0-60
<b>-</b>	90-92.5	80-82.5	70-72.5	60-62.5	

## 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.

## 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 \(https://www.pointloma.edu/offices/office-institutional-effectiveness-research/disclosures\)](https://www.pointloma.edu/offices/office-institutional-effectiveness-research/disclosures) to view which states allow online (distance education) outside of California.

## **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.

## **CLASS ENROLLMENT**

It is the student's responsibility to maintain his/her class schedule. Should the need arise to drop this course (personal emergencies, poor performance, etc.), the student has the responsibility to follow through (provided the drop date meets the stated calendar deadline established by the university), not the instructor. Simply ceasing to attend this course or failing to follow through to arrange for a change of registration (drop/add) may easily result in a grade of F on the official transcript.

## **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 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. Faculty should follow and students may appeal using the procedure in



university Catalog. See [Academic Policies \(http://catalog.pointloma.edu/content.php?catoid=18&navoid=1278\)](http://catalog.pointloma.edu/content.php?catoid=18&navoid=1278) 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. 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) (<https://mail.google.com/mail/?view=cm&fs=1&tf=1&to=EAC@pointloma.edu>) or 619-849-2486). Once a student's eligibility for an accommodation has been determined, the EAC will issue an academic accommodation plan ("AP") to all faculty who teach courses in which the student is enrolled each semester.

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 and/or if they do not wish to utilize some or all of the elements of their AP in that course.

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.

## 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 withdrawal date or, after that date, receive an "F" grade.

## COURSE MODALITY DEFINITIONS

1. **In-Person:** Course meetings are face-to-face with no more than 25% online delivery.
2. **Online:** Coursework is completed 100% online and asynchronously.
3. **Online Synchronous:** Coursework is completed 100% online with required weekly online class meetings.
4. **Hybrid:** Courses that meet face-to-face with required online components.

In some courses, a portion of the credit hour content will be delivered asynchronously and attendance will be determined by submitting the assignments by the posted due dates. See



[Academic Policies](https://pointloma-public.courseleaf.com/tug-catalog/academic-general-policies/)  (<https://pointloma-public.courseleaf.com/tug-catalog/academic-general-policies/>) in the Undergraduate Academic Catalog.

## ASYNCHRONOUS ATTENDANCE/PARTICIPATION DEFINITION

A day of attendance in asynchronous content is determined as contributing a substantive note, assignment, discussion, or submission by the posted due date. Failure to meet these standards will result in an absence for that day. Instructors will determine how many asynchronous attendance days are required each week.

## 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](https://help.pointloma.edu/TDCClient/1808/Portal/KB/ArticleDet?ID=108349) (<https://help.pointloma.edu/TDCClient/1808/Portal/KB/ArticleDet?ID=108349>) 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 require a computer with a camera (tablets are not compatible) 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.

## 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 the [Office of Student Life and Formation](https://www.pointloma.edu/offices/spiritual-development). (<https://www.pointloma.edu/offices/spiritual-development>)

## COURSE SCHEDULE

[Here](https://canvas.pointloma.edu/courses/73477/files/7066972?wrap=1) (<https://canvas.pointloma.edu/courses/73477/files/7066972?wrap=1>) 

([https://canvas.pointloma.edu/courses/73477/files/7066972/download?download\\_frd=1](https://canvas.pointloma.edu/courses/73477/files/7066972/download?download_frd=1))  is the document, an image is provided below.



<b>Week of</b>	<b>Tuesday (Lab)</b>	<b>Thursday</b>	<b>Due Soon</b>
1/8/2024	Quick Course Intro and Start Lecture Chapter 9	Lecture: 9.1/9.2 Introduction to Probability	Read 9.1/9.2 <b>Due:</b> Obtain Course Materials
1/15/2024	<i>Zoom Session (Optional)</i> <b>Due:</b> Videos 9.3/9.4 & Warm-Up	Recap Chapter 9, Class Activity and Homework Time	Read 9.3/9.4 <b>Due:</b> CA1, Written 9.1B-9.4B
1/22/2024	<i>Zoom Session (Optional)</i> <b>Due:</b> Videos 10.1-10.3 & Warm-Up	Recap 10.1-10.3, Class Activity and Homework Time	Read 10.1-10.3 <b>Due:</b> CA2, Written 10.1B-10.3B
1/29/2024	<i>Zoom Session (Optional)</i> <b>Due:</b> Videos 10.4/10.5 & Warm-Up	Recap 10.4/10.5, Class Activity and Homework Time	Read 10.4/10.5 <b>Due:</b> CA3, Written 10.4B/10.5B
2/5/2024	<i>Zoom Session (Optional)</i> <b>Due:</b> Videos 11.1/11.2 & Warm-Up	Recap 11.1/11.2, Class Activity and Homework Time	Read 11.1/11.2 <b>Due:</b> CA4, Written 11.1B/11.2B
2/12/2024	<i>Zoom Session (Optional)</i> <b>Due:</b> Videos 11.3/11.4 & Warm-Up	Recap 11.3/11.4, Class Activity and Homework Time	Read 11.3/11.4 <b>Due:</b> CA5, Written 11.3B/11.4B
2/19/2024	<i>Zoom Session (Optional)</i> <b>Due:</b> Mid Term Review Questions	Recap Chapters 9-11 Questions and Class Activity	Finish Reading Ch9-11 <b>Due:</b> CA6
2/26/2024	<i>Zoom Session (Optional)</i> <b>Due:</b> Study	<b>Mid-Term Exam</b>	Have A Good Break! <b>Due:</b> Nothing
3/4/2024	<b>Spring Break</b>		
3/11/2024	<i>Zoom Session (Optional)</i> <b>Due:</b> Videos 12.1/12.2 & Warm-Up	Recap 12.1/12.2, Class Activity and Homework Time	Read 12.1/12.2 <b>Due:</b> CA6, Written 12.1B/12.2B
3/18/2024	<i>Zoom Session (Optional)</i> <b>Due:</b> Videos 12.3/12.4 & Warm-Up	Recap 12.3/12.4, Class Activity and Homework Time	Read 12.3/12.4 <b>Due:</b> CA7, Written 12.3B/12.4B
3/25/2024	<i>No Zoom Session</i> <b>Due:</b> Videos 13.1/13.2 & Warm-Up	<b>Easter Break</b>	
4/1/2024	<b>Easter Break</b>	Discuss Project, Recap 13.1/13.2 Class Activity and Homework	Read 13.1/13.2 <b>Due:</b> CA8, Written 13.1B/13.2B
4/8/2024	<i>Zoom Session (Optional)</i> <b>Due:</b> Videos 13.3/13.4 & Warm-Up	Recap 13.3/13.4, Class Activity and Homework Time	Read 13.3/13.4 <b>Due:</b> CA9, Written 13.3B/13.4B
4/15/2024	<i>No Zoom Session</i> <b>Due:</b> Videos 14.1-14.3 & Warm-Up	Recap 14.1-14.3, Class Activity and Homework Time	Read 14.1-14.3 <b>Due:</b> CA10, Project
4/22/2024	<i>Zoom Session (Optional)</i> <b>Due:</b> Videos 14.4-14.5 & Warm-Up	Recap Ch14.4/14.5, Ch12-14 Questions and Review	Read 14.4-14.5 <b>Due:</b> CA11, Written 14.1-14.3
4/29/2024	<i>No Class (Finals Week)</i> <b>Due:</b> Written 14.4/14.5, Review	<b>Final Exam</b> 4:30pm-7:00pm	<b>No Class</b> Class is Over!

