



Mathematics, Information, and Computer Sciences – School of STEM

CSC 4133/ISS 4133/MTH 4133: Service Learning in Mathematics, Computer Science and Information Systems

3 units

Fall 2024

Mondays 2:40 pm – 5:25 pm

**Rohr Science, Room 365**

**Final Exam: December 16<sup>th</sup> 1:30 pm – 4:00 pm**

Information	Specifics for the course
Instructor name and title:	Jesús Jiménez Reyes, Professor of Mathematics
Phone:	619-849-2634
Email:	jjimenez@pointloma.edu
Office location and hours:	Rohr Science 234 or ZOOM M 11:00 am – 12:00 pm, 1:00 – 2:00 pm, W 11:00 am – 12:00 pm, 1:00 – 2:00 pm TR 10:00 am – 12:00 pm or 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.

#### **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**

Students working in teams design and implement a project using a broad spectrum of mathematical knowledge to meet the needs of a community organization or the university.

Letter grade.

**Prerequisite(s):** Consent of instructor and Junior standing.

#### **PROGRAM AND COURSE LEARNING OUTCOMES**

- Students will be able to apply their technical knowledge to solve problems.
- Students will be able to speak about their work with precision, clarity and organization.
- Students will be able to write about their work with precision, clarity and organization.
- Students will collaborate effectively in teams.
- Students will be able to identify, locate, evaluate, and effectively and responsibly use and cite information for the task at hand.
- Students will be able to gather relevant information, examine information and form a conclusion based on that information.
- 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.

#### **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 15 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 in the Canvas modules. Specific details about how the class meets the credit hour is provided below.

### Distribution of Student Learning Hours

Category	Time Expectation in Hours
Team Meetings	14
Class Meetings	21.75
Client Meetings	4
Presentations	12.25
Work on Project/Paper Writing	60.5
<b>Total Hours</b>	<b>112</b>

### POINTS DISTRIBUTION

Task	Possible points	Point deductions
Skills Presentation	10	10 if missed by presenter, up to 10 if inadequate or absent
Ethics Presentation	5	Up to 5 for poor or missed ethics presentation
Group Presentations	15	5 for mid-semester presentation and 10 for final presentation
Weekly Progress Reports	15	2 for each time sufficient progress was not made that week
Poster/Presentation	10	10 for presentation absence, up to 10 for poor poster
Elevator Speech	5	Up to 5 for poor elevator speech
Peer/Mentor Evaluations	10	Up to 5 points for less than stellar evaluation, or a missing eval
Project Paper	20	Up to 20 for poor content and quality -4 for a missing section
Group Assignments (written, meetings, reflections, etc.)	10	5 for missing assignment or not contributing to assignment (in-class or out)
<b>Total</b>	<b>100</b>	

### ASSESSMENT AND GRADING

#### Graded Components

- **Skills presentation:** This is expected to be a group grade as presentations will be made in groups of 2-3. However, if 1 person is missing, or does not speak, that individual will likely receive the maximum deduction. Presentation should cover material requested by professor. Presentation is expected to be 15-20 minutes and should include a 5-minute exercise for the class to complete.
- **Ethics presentation:** Our work is not just about what we do, but how we do it, keeping in mind how it will affect society. Each student will be required to lead a discussion based on an ethics-based paper. The student should have thoroughly read and contemplated the paper and prepared a brief synopsis along with 3-4 discussion questions for class consideration based on that paper. Please feel free to include any insights that the Bible presents on the general topic. Presentations typically made on Mondays.
- **Group presentations:** This is a group grade. However, if 1 person is missing, or does not speak, that individual will receive the maximum deduction, and this will not affect the rest of the group. Progress on project will be judged by your presentation, and failure to show adequate progress on your project can result in huge

deductions especially on the final presentation during the final exam time. Your final exam will be a group presentation. The final exam is Monday at 1:30 pm

- **Weekly progress reports:** A recounting of what you, as an individual, completed towards the project. Points can be re-gained in this category if dramatic contribution was made the week after points were missed.
- **Poster:** Your poster will be presented to a wide audience. The expected presentation date is Monday, November 9. The poster as a whole is a group grade for 10 points. The exception is that an absence for the presentation is an automatic deduction of 10 for the individual. This does not affect the group.
- **Elevator speech:** The elevator speech shows that in individual is familiar enough with the project to present an interesting summary in 30-60 seconds. This is an individual grade and will be developed in anticipation of the poster presentation.
- **Peer evaluations:** Are expected to be honest assessments of the contribution of your team member. Points will be deducted from the evaluation that you complete if the professor believes that the evaluation is not a true representation of reality (in other words, that you are just trying to be nice to a friend).
- **Project Paper:** The project paper is an individual grade. It will be based on the individual sections being turned in and revised as requested. Credit is not given if the sections are not turned in on time. Points may also be deducted if you are absent on a day when peer reviews take place or if the final quality of the paper is poor.
- **Group assignments:** Group assignments may include, but are not limited to, development of the problem statement and management plans, client meetings, client approvals, poster draft, and reflections.
- **Final Examination.** 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. Successful completion of this class requires taking the final examination on its scheduled day. The final examination schedule is posted on the [Class 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.
- **Late work will not be accepted** without prior consent or a well-documented emergency. Up to a maximum of one homework assignment will be accepted up to 3 days late provided that consent is received from the professor before it is due. 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.
- **Incomplete grade:** Incompletes will only be assigned in extremely unusual circumstances. You may request a grade of I (incomplete) only if you are having a passing grade an at least 70% of the course work is completed.

### Grading Scale

Grades are based on the number of points accumulated throughout the course Approximate minimal percentages required to obtain a given grade are:

Standard Grade Scale Based on Percentages					
	A	B	C	D	F
+		[87.5 – 90)	[77.5 – 80)	[67.5 – 70)	
	[92.5 – 100)	[82.5 – 87.5)	[72.5 – 87.5)	[62.5 – 67.50)	[0 – 60)
–	[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.

**CONTENT WARNING**

I acknowledge that each of you comes to PLNU with your own unique life experiences. This contributes to the way you perceive various types of information. In [class name], all of the class content, including that which may be intellectually or emotionally challenging, has been intentionally curated to achieve the learning goals for this course. The decision to include such material is not taken lightly. These topics include [list topics]. If you encounter a topic that is intellectually challenging for you, it can manifest in feelings of discomfort and upset. In response, I encourage you to come talk to me or your friends or family about it. Class topics are discussed for the sole purpose of expanding your intellectual engagement in the area of [subject/major], and I will support you throughout your learning in this course.

**TRIGGER WARNING**

I acknowledge that each of you comes to PLNU with your own unique life experiences. This contributes to the way you perceive several types of information. In [class name], we will cover a variety of topics, some of which you may find triggering. These topics include [list topics]. Each time this topic appears in a reading or unit, it is marked on the syllabus. The experience of being triggered versus intellectually challenged are different. The main difference is that an individual must have experienced trauma to experience being triggered, whereas an intellectual challenge has nothing to do with trauma. If you are a trauma survivor and encounter a topic in this class that is triggering for you, you may feel overwhelmed or panicked and find it difficult to concentrate. In response, I encourage you to take the necessary steps for your emotional safety. This may include leaving class while the topic is discussed or talking to a therapist at the Counseling Center. Should you choose to sit out on discussion of a certain topic, know that you are still responsible for the material; but we can discuss if there are other methods for accessing that material, and for assessing your learning on that material. Class topics are discussed for the sole purpose of expanding your intellectual engagement in the area of [subject/major], and I will support you throughout your learning in this course

**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 you have questions, a desire to meet with the chaplain or have prayer requests you can contact the [Office of Spiritual Life and Formation](#)

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

**ARTIFICIAL INTELLIGENCE (AI) POLICY**

You are allowed to use Artificial Intelligence (AI) tools (e.g., ChatGPT, Gemini Pro 1.5, GrammarlyGo, Perplexity, etc.) to generate ideas, but you are not allowed to use AI tools to generate content (text, video, audio, images) that will end up in any work submitted to be graded for this course. If you have any doubts about using AI, please gain permission from 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](mailto: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 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 special accommodations.

**LANGUAGE OF 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](http://www.pointloma.edu/bias).

### **SEXUAL MISCONDUCT AND DISCRIMINATION**

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)

### **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.

- Online Courses: These are courses with class meetings where all instruction and interaction is fully online.
- Synchronous Courses: At least one class meeting takes place at a designated time.
- Asynchronous Courses: All class meetings are asynchronous.
- Hybrid Courses: These are courses with class meetings that take place both in the classroom and online synchronously and/or asynchronously.
- 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).

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](#) in the Undergraduate Academic Catalog.

### **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.

**DAILY SCHEDULE**

<b>Week</b>	<b>Monday</b>	<b>What's due</b>	
1	9/9 Introduction to the class Discuss projects. Sign-ups for projects	Discuss first client meeting. Discuss working in groups. Email the client. Sign up for skills presentations	GA: Problem Statement & Plan for Client meeting
2	9/16 Discuss ethics presentations. Discuss scheduling project		GA: First Client meeting Report Week 1: Progress Report
3	9/23 Skills presentations 1 – 3 Gantt Chart Discussion		GA: Gantt Chart Week 2: Progress Report
4	9/30 Discussion on Technical Writing Skill presentations 3 – 6	Working Groups	GA: Second Client Meeting Week 3: Progress Report (Paper) Outline (Paper) Draft Introduction
5	10/7 Report on Second meeting	Working Groups	Week 4: Progress Report (Paper) Draft of Methods to solve the problem
6	10/14 Ethics Presentation #1, 2, 3 Peer Review Introduction	Plan group presentations	Week 5: Progress Report (Paper) Final Introduction
7	10/9 Ethics presentation #4, 5, 6	<b>Mid semester presentations All groups</b>	Week 6: Progress Report
8	10/21 Ethics Presentation #7, 8, 9 Peer Review Methods Section	Poster discussion Working Groups	GA: Third client meeting Week 7: Progress Report (Paper) Final Methods Section
9	10/28 Ethics Presentation #10, 11, 12	Report on Client meeting Working Groups	Week 8: Progress Report (Poster) Draft of poster (Paper) Draft of Results sections
10	10/30 Ethics Presentation #13, 14, 15	Peer Review Results Working groups	Week 9: Progress Report (Paper) Final Results Section
11	11/4 Ethics Presentation #16, 17	Elevator Speech	Week 10: Progress Report
12	11/11 Working groups	Wrapping things up	Week 11: Progress Report (Paper) Draft Paper Conclusion
13	11/18 Peer Review Conclusion (Paper)	Poster presentations TBA	
14	11/25	Poster Presentations TBA	Week 13: Progress Report (Paper) Final Paper Conclusion
15	12/2	Poster Presentations TBA Final Client Meeting	GA: Final Client Meeting Week 14: Progress Report (Paper) Final paper due
Finals	12/9	(Friday of finals week) <b>Final Presentations 1:30- 4:00</b>	Final Peer Evaluations