CSC/EGR 3023
Software Engineering
Fall 2024
3 units

Point Loma Nazarene University
Mathematical, Information and Computer Sciences

PLNU Mission
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.

Instructor:
> Dr. Benjamin Mood
> bmood@pointloma.edu
> 619 849 2269
> Rohr Science 216

Meeting Times and Locations:
> **Lecture:**
> > **1:30 to 2:45pm @ RS395**

Final Exam: Thursday, December 19, 2024, 1:30pm-4:00pm

Office Hours:

> **M – 11:15 to 12:15 (Caf)**
> **T – 11:45 to 1:15 (Caf)**
> **W – 11:15 to 12:15 (Caf) 12:15 to 3:00 (Office)**
> **R – 10 to 11:45 (Office) 11:45 to 1:15 (Caf)**

Books:
> *Head First Software Development* by Dan Pilone and Russ Miles
> *Head First Design Patterns* by Eric Freeman and Elisabeth Robson.
>
> *I will not be assigning HW from the books

Course Description:

This course offers an in-depth treatment of the software development process. Software analysis and design study emphasizes an object-oriented approach that is introduced and contrasted with traditional design methodologies. CASE tools are used during the design process. Lecture two hours each week.

Alternating Years. Offered 2024-25.

Learning Outcomes:

Students will be able to write correct and robust software.
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 be able to identify, locate, evaluate, and effectively and responsibly use and cite information for the task at hand.
Students will collaborate effectively in teams.
Students will be able to gather relevant information, examine information and form a conclusion based on that information.

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 Information:

- **Projects.** Each student will be assigned to a group for each of the three projects. The grade for the projects are a combination of the grades on each project combined with the team evaluations. Team members who do extra will be marked higher, team members who do not work as much as other team members will be marked lower. Missing team evaluations will negatively impact your grade.

- **Programming Exam.** Your final will be a 2.5 hour programming exam. You are expected to know enough about your team's projects to create a new thing. Principally, you should expect to know how to create a new JavaFX graphics application that uses key/mouse input to accomplish a task and a sufficient knowledge of AI tools to get help from them.

- **Examinations and the 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.

- **Late work will not be accepted** without prior consent or a well-documented emergency.

  Be Courteous and Respectful.

Grading:

Projects/Team evaluations/Team meetings	45%
Exam1	15%
Exam2	15%
Programming Final	25%

For a student to receive a passing grade in this class, they must achieve at least a 60% on a project. If they do not receive at least a 60% on a project, they will receive an F in the class regardless of all other point totals.

Grading scale
93 – 100%   A
90 – 92%   A-
87 – 89%   B+
83 – 86%   B
80 – 82%   B-
77 – 79%   C+
73 – 76%   C
70 – 72%   C-
67 – 69%   D+
63 – 67%   D
60 – 62%   D-
0 – 59%   F

PLNU Policies

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.

Final Exam Time:

December 19th (Thursday) at 1:30pm.

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 <u>one</u> 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 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.

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 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.

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.

<u>Tentative</u> Schedule

Monday	Tuesday	Wednesday	Thursday	Friday
Sept 2 **No Class**	3 Chap 1 + 2 + git Project 1 start		5 Generative AI	
9	**10** Chap 3 + 4		12 Team Evals Due	
16	17 Chap 5 + 6		19 Team Evals Due	
23	24 Chap 7 + 8 + 11		26 Team Evals Due	
30	Oct 1 Catch up		3 Exam	

7	8 Team Evals Due Project 1 Due Project 2 start Design Patterns		10	
14	15 Design Patterns		17 Team Evals Due	
21	22 Design Patterns		24 (Fall Break No classes)	
28	29 Design Patterns		31 Team Evals Due	
Nov 4	5 Design Patterns		Nov 7 Exam	
11	12 Team Evals Due Project 2 Due Project 3 start Algorithms		14 Algorithms	
18	19 Algorithms		21 Team Evals Due Algorithms	
25	26 Algorithms		28 (No Classes)	
Dec 2	3		Dec 5 Team Evals Due	
9	10		12	
Team Evals Due Project 3 due @			19 Final @ 1:30pm	

11:59pm on Saturday.				