CSC1043 / EGR1043
Introduction to Programming
Fall 2024
3 units

Point Loma Nazarene University
Math, 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.

Instructors:

Dr. Benjamin Mood
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Rohr Science 216

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Meeting Times and Locations:

Lecture Times:
M – 12:40pm to 2:25pm
T – 10:00am to 11:45am

Lab Times:
T – 7:25am to 9:10am
W – 12:40pm to 2:25pm

Final Times:
Written:
M Lecture – 12:40pm on Dec 9th
T Lecture - 10:00am on Dec 10th

Programming:
T Lab – 7:30am on Dec 17th
W Lab – 10:30am on Dec 18th

Mood Tentative 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)

Sovde Tentative Office Hours:

M - 9:30am to 11:30am
F – 12:00pm to 2:00pm

Books:

Java Illuminated 6th edition. By Julie Anderson and Herve Franceschi

Course Description:

Introduces the syntax of a high level programming language with emphasis on the programming environment and the use of the constructs of the language to write simple application programs. Topics include data types, sequential, conditional, and iterative statements, one and multi-dimensional arrays, simple graphical animation, the use of objects, and I/O. Programming assignments get progressively more complex and designed to demonstrate the use of computing in a variety of disciplines including the natural sciences. Lecture two hours and laboratory two hours each week.

More specifically, this course is designed:

- To introduce students to general computer programming concepts and environments. Specifically, we will be using the Java language, with the jGrasp integrated design environment. Students will develop programs from algorithm design to testing.

- To present the syntax of the object-oriented computer programming language Java, and to prepare the student to write simple programs in preparation for more advanced computer science courses. This course covers basic data types and associated operations, use and theory of objects, graphics, conditional statements, arrays, and loops. Students will gain experience writing programs for many contexts including science, business, engineering, and mathematics.

Learning Outcomes:

Students will be able to write correct and robust software.
Students will analyze the interaction between hardware and software.
Students will be able to apply their technical knowledge to solve problems.
Students will collaborate effectively in teams.
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.

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.

Additional Course Information:

Organization:

Lecture (Monday/Tuesday): There will be a formal presentation introducing you to the material that you will read about and on which you will have your next lab. Student versions of the lecture slides can be obtained from Canvas. Written exams will also take place during these sessions.

Homework: Each week, after an introductory lecture, students will be responsible for reading a section of the text and taking online quizzes. All quizzes must be completed by the canvas deadline. Note that they will not even be available after that. While there is no make-up for quizzes not taken by the deadline, your 3 lowest on-line quizzes will be dropped.

Lab sessions:

It is required that you remain in the lab until the end of the session, or you complete any classwork and get your lab signed off. Failure to remain in the lab session will likely result in points off from your lab for that week.

Labs (programming assignments) are assigned on Monday at noon and due by the following Monday at noon. You will turn in the code on Canvas. To receive full credit on your lab, you must also get it checked by a lab assistant or the professor and have them note their approval on Canvas. Your code must be checked and turned in by noon on Monday.

Note that no late labs are accepted, but also that I will drop your lowest lab grade.

Opportunities for getting code checked:

Virus lab hours (See first module on Canvas)
Class lab hours
Office hours
Sometimes at the end of class

To receive full credit on a lab, your lab must:

Be original work (a grade of 0 may be awarded if the code of two or more people is too similar).
Be well-documented (comments in the code)
Be well-formatted (indentation and white space)
Use meaningful identifiers
Follow requested style where indicated (certain type of loop, data structure, etc.)
Work correctly for all test cases run by the lab assistant or professor.

Virus lab (help hours to be held in RS 395 this year):

Lab assistants will be available in the Rohr Science lab (RS 395) to help with programs and to approve programs. The schedule will be posted on the door of the lab and announced in class. If the lab is crowded with people needing help or getting labs checked off, the lab assistant may limit the help given to 5 minutes before moving on to another person. This is most likely to happen if you are attending a virus lab session that is close to the time when a program is due. Please take this into account when making your plans. Lab assistants are not allowed to start checking the lab of another person after their scheduled time has ended.

For other opportunities to work together, the virus lab is available. That is located in RS 225.

A-Advice:

The way to excel in this class and all other computer science classes is to read the book if you don't understand something, learn to debug well, learn to solve your own code problems, go to office hours, and go to virus lab hours if you have questions. In the future, you will hit a 'wall' if you do not understand the concepts yourself and rely too heavily on lab assistants, classmates, or Dr. Mood.

Helping each other:

It is typical for people to help each other in this class. However, depending on how you help each other, it is entirely possible that you will end up hurting each other's grades on the exams because on the exams I expect you to solve problems on your own. If your help prevents a person from developing their own skills, this is not good. It is normal to see scores of 100% on the labs and then F's programming exams due to this reason. If your friend is dependent on you to solve the labs, that is not good.

Cheating: Unless otherwise noted, talking and working with fellow students to understand concepts is OK. However, copying code from another student (or giving your code to another student) is not acceptable and can result in a staggering penalty of -100% on whatever assignment/exam it was. Although sharing code seems a "nice" to help a friend, the penalty applies to all involved. **Do not share your code with anymore. Do not let someone look at your code.** If you use online resources, you must site the direct URLs in the labs you turn in.

ChatGPT (and other AI tools) are banned from being used in this class and their use is treated as academic dishonesty (cheating). Simply put, once you know how to program they are useful tools, but this class is to teach you the basics you need to know.

Missed Classes: Homework/Quizzes/Exams missed due to PLNU excused absences (i.e., sports teams, choirs, etc.), can be made up. Missed Quizzes/Exams/etc. due to emergencies can be made up once the dean of students informs Dr. Mood that PLNU has approved the reason. Non-emergency missed exams will result in a zero. It is the student's responsibility to inform the professor of when they will be gone. Missed class activities, which are due to a non-dean of students approved-emergency situation, will result in a zero.

Recordings: Dr. Mood will be recording each class and post the recordings online (assuming he doesn't forget).

Grading:

Students must pass a written and a programming exam in order to pass this class. Students who fail both programming exams or fail both written exams will receive an 'F' in the class regardless of all other grades.

Labs	25%
Online Quizzes	5%
In class quizzes	10%
Written Exam I	15%
Programming Exam I	15%
Written Exam II	15%
Programming Exam II	15%

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 Times:

Written:

M Lecture – 12:40pm on Dec 9th

T Lecture - 10:00am on Dec 10th

Programming:

T Lab – 7:30am on Dec 17th

W Lab – 10:30am on Dec 18th

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 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.

Tentative Schedule

Monday Lecture	Tuesday Lecture		Tuesday Lab	Wednesday Lab	Readings for week
Sept 2 **No Class**	3 Intro		Sept 3 Intro + JGrasp Lab	4 JGrasp Lab	1.1, 1.3, 1.5 (intro)

9 Programming!	**10** Programming!		10 Metrics Lab	11 Metrics Lab	2.1-2.3 (metrics)
16 Chapter 3: String and Scanner	17 Chapter 3: String and Scanner		17 DNA stats Lab	18 DNA stats Lab	3.1, 3.6, 3.7, 3.10
23 Objects: Random, Decimal Format, Math, Wrappers	24 Objects: Random, Decimal Format, Math, Wrappers		24 BMI Lab	25 BMI Lab	3.8-3.9, 3.12, 3.13, 3.15
30 Intro to Graphics	Oct 1 Intro to Graphics		Oct 1 Business card lab	2 Business card lab	Chapter 4
7 Intro to If	8 Intro to If		8 If Lab **Programming Quiz @ end of class (60min)**	9 If Lab **Programming Quiz @ end of class (60min)**	5.1 – 5.4
14 **Written Quiz** More Conditionals	15 **Written Quiz** More Conditionals		15 Password Lab	16 Password Lab	5.5 – 5.11
21 While Loops	22 While Loops		22 While Loop lab	23 While Loop lab	
28 **Written Midterm**	29 **Written Midterm**		29 **Programming Midterm**	30 **Programming Midterm**	6.1 – 6.7
Nov 4 Other loops	5 Other loops		Nov 5 Loops Lab	6 Loops Lab	6.8 – 6.10
11 Arrays	12 Arrays		12 Array Lab	13 Array Lab	8.1 – 8.3
18 Searching and Sorting	19 Searching and Sorting		19 Searching and Sorting Lab	20 Searching and Sorting Lab	8.6
25 Ethics Lab - virtue	26 Ethics Lab - virtue		26 **(No Classes)**	27 **Thanksgiving break (No Classes)**	

Dec 2 2D arrays	3 2D arrays		Dec 3 2D array lab	4 2D array lab	9.1 – 9.5
9 **Written Exam II**	10 **Written Exam II**		**10** Review	**11** Review	
			Tuesday of Finals @ 7:30am **Programming Exam II**	**Wednesday of Finals @ 10:30am** **Programming Exam II**	