Syllabus

To-Do Date: Mar 1 at 11:59pm

POINT LOMA NAZARENE UNIVERSITY	**Math, Information, and Computer Sciences, College of Natural and Social Sciences** **CSC1054: Objects and Elementary Data Structures** **Lecture (3) + Lab (1)**
Spring 2021	

Instructor: Benjamin Mood, PhD

Phone: 619.849.2269

Email: bmood@pointloma.edu

Room: LA 02

Time: MWF 11:00am

Lab: R 10am-11:45am or 3am-4:45am

Office hours: Over discord. (https://discord.gg/c4BeNsc)

M: 8:30 - 9:30; 1:30-2:30

T: 8:30 - 9:30; 12:30 - 1:30

W: 8:30 - 9:30; 1:30-2:30

H: 8:30 - 9:30; 12:30 - 1:30

F: 8:30 - 9:30; 1:30-2:30

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

As a continuation of **CSC 1043** (https://catalog.pointloma.edu/content.php?filter%5B27%5D=CSC&filter%5B29%5D=&filter%5Bcourse_type%5D=-1&filter%5Bkeyword%5D=&filter%5B32%5D=1&filter%5Bcpage%5D=1&cur_cat_oid=46&expand=&navoid=2658&search_database=Filter#tt6269), this course deals with more advanced computing constructs and ideas, reinforced in weekly labs. Topics include object-oriented design, inheritance, polymorphism, exception handling, and recursion, along with more intentional development and debugging strategies. Linked lists are introduced as a viable option for implementing basic ADT's. Students gain experience in the design of graphical user interfaces, event driven programming, and larger programming projects.

COURSE 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 be able to speak about their work with precision, clarity and organization.
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- Students will collaborate effectively in teams.
- 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.

REQUIRED TEXTS AND RECOMMENDED STUDY RESOURCES

Java Illuminated 5th edition. By Julie Anderson and Herve Franceschi

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 4-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.)

Distribution of Student Learning Hours

Category	Time Expectation in Hours

Category	Time Expectation in Hours
Lecture and Labs times (including in-class activities and exams)	64
Outside of class labs	86
Total Hours	150

ASSESSMENT AND GRADING

Graded Components

- **Labs:** Labs are used to give students a way to practice the concepts studied in lecture. They will be composed of practical and question sections. The practical part of the lab must be demonstrated to Dr. Mood or a lab assistant to show that it works successfully. A completed lab includes the "signed off" practical sections and answers to the theoretical questions; all code and necessary data files and question answers will be turned in on online on canvas. It should be well commented. Code missing comments will not be given full credit.

  Labs, for all sections, are due Thursday at 10am. The new lab will be accessible shortly there after.

  My expectations is that students will use the JGRASP IDE in this class. The purpose of this class is for you to learn everything required for programming. This means it is to your benefit not to have code filled in by a fancy IDE. Code that requires edits to be run by myself (or the TAs) due to IDE choices will result in point deductions.

  Unless you have finished the lab and it is already checked off and submitted on canvas or you have previously received permission, the expectation is that you will be in the lab during lab time.
- **Quizzes:** We will have in-class quizzes on the lab that was just turned in. The implication is that in order to do well on the quizzes, you have to do and understand the labs. The quizzes will have questions of similar type, content, and style to the written exams. The lowest quiz will be dropped.
- **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 the concepts at an 'A' level, 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 even Dr. Mood.
- **Cheating:** You should not copy another student's work. Unless otherwise noted, talking and working with fellow students to understand concepts is OK. Copying code from another student is not acceptable and will result in a staggering penalty. Although sharing code seems a "nice" to help a friend, if caught and I do not know who actually wrote the code, the penalty applies to all involved. **Do not share your code with anymore - otherwise, you do not know if they will turn in your exact code.** If you use online resources, you must site the direct URLs in the labs you turn in (this is the standard).

  Rule of thumb: everything you turn in you should have written and be able to completely explain. Meaning, if I call you into my office hours to explain your work, you should be able to because you wrote your code from your understanding.
- **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. This schedule can be found on the university website and in the course calendar. 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.

- **Attendance:** Attendance is taken in lectures & labs and may affect your final lab grades.
- **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.

Grading Distribution	**Percent**
Labs	30
Project	10
Quizzes	15
Written Exam 1	10
Programming Exam 1	10
Final Written	12.5
Final Programming	12.5
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 written exams and one of the programming exams. That is, a score of 60% must be achieved on one of the written exams and one of the programming exams, 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:

Standard Grade Scale Based on Percentages					
	A	**B**	**C**	**D**	**F**
+		87.5- 90	77.5-80	67.5-70	

Standard Grade Scale Based on Percentages					
	A	**B**	**C**	**D**	**F**
	92.5 -100	82.5-87.5	72.5-77.5	62.5 -67.5	0-60
_	90-92.5	80-82.5	70-72.5	60-62.5	

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)** 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 the university Catalog. See **Academic Policies**

(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

While all students are expected to meet the minimum standards for completion of this course as established by the instructor, students with disabilities may require academic adjustments, modifications or auxiliary aids/services. At Point Loma Nazarene University (PLNU), these students are requested to register with the Disability Resource Center (DRC), located in the Bond Academic Center. (DRC@pointloma.edu (mailto:DRC@pointloma.edu) or 619-849-2486). The DRC's policies and procedures for assisting such students in the development of an appropriate academic adjustment plan (AP) allows PLNU to comply with Section 504 of the Rehabilitation Act and the Americans with Disabilities Act. Section 504 (a) prohibits discrimination against students with special needs and guarantees all qualified students equal access to and benefits of PLNU programs and activities. After the student files the required documentation, the DRC, in conjunction with the student, will develop an AP to meet that student's specific learning needs. The DRC will thereafter email the student's AP to all faculty who teach courses in which the student is enrolled each semester. The AP must be implemented in all such courses.

If students do not wish to avail themselves of some or all of the elements of their AP in a particular course, it is the responsibility of those students to notify their professor in that course. PLNU highly recommends that DRC students speak with their professors during the first two weeks of each semester about the applicability of their AP in that particular course and/or if they do not desire to take advantage of some or all of the elements of their AP in that course.

PLNU ATTENDANCE AND PARTICIPATION POLICY

Attendance is expected at each class session. In the event of an absence you are responsible for the material covered in class and the assignments given that day.

Regular and punctual attendance at all classes is considered essential to optimum academic achievement. If the student is absent from more than 10 percent of class meetings, the faculty member can file a written report which may result in de-enrollment. If the absences exceed 20 percent, the student may be de-enrolled without notice until the university drop date or, after that date, receive the appropriate grade for their work and participation. See **Academic Policies** (http://catalog.pointloma.edu/content.php?catoid=18&navoid=1278) for further information about class attendance.

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.

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 Spiritual Development** (https://www.pointloma.edu/offices/spiritual-development)

Final Exam:

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. This schedule can be found on the university website and in the course calendar. 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.

Approximate Schedule:

Monday		**Wednesday**		**Friday**
1-March	2-March	3-March	4-March	5-March
9.7		9.7 including 2D	Lab 1: Array Lists	Debuggin
8-March	9-March	10-March	11-March	12-March
7.1-7.6		7.7-7.9	Lab 2: Classes	7.10-7.11
15-March	16-March	17-March	18-March	19-March
7.10-7.11		Using classes	Lab 3: Classes II	10.1-10.6
22-March	23-March	24-March	25-March	26-March
10.1-10.6		10.1-10.6	Lab 4: Inheritance	11.1-11.4
29-March	30-March	31-March	1-April	2-April
11.1-11.4		No Classes	Lab 5: Files and Exceptions	12
5-April	6-April	7-April	8-April	9-April
12		12	Lab 6: GUI	12
12-April	13-April	14-April	15-April	16-April
Review		**"Written" Exam**	**Programming Exam**	12
19-April	20-April	21-April	22-April	23-April
12		12	Lab 7: GUI	12

26-April	27-April	28-April	29-April	30-April
12		12	Lab 8: GUI	GIT
3-May	4-May	5-May	6-May	7-May
13		No Classes	Project Start	13
10-May	11-May	12-May	13-May	14-May
13		8.6	Lab 10: Recursion	8.6, 14
17-May	18-May	19-May	20-May	21-May
14		14	Project due here. Lab 11: Linked Lists	14
24-May	25-May	26-May	27-May	28-May
14		14	Lab 12: Queues	14
31-May	1-June	2-June	3-June	4-June
Review		Review	**Programming Final**	Review
7-June	8-June	9-June	10-June	11-June
				"Written"