Course Syllabus

Jump to Today 📎 Edit



Department: Mathematical, Information and Computer Sciences

CSC 1043: Introduction to Computer Programming

Number of Units: 2 + 1 unit for lab

Fall 2022

Meeting days, times, locations: Monday Lecture: LA 1 - 1:30 - 3:15 Tuesday Lecture: LA 1 - 3:00 - 4:45 Weds Lab: LA 1 - 1:30 - 3:15 Thursday Lab: LA 1 - 3:00 - 4:45	Instructor title and name: Dr. Benjamin Mood, Professor of Computer Science
Phone: (619) 849-2269	Email: bmood@pointloma.edu
Final Exam: Monday lecture: Friday 12/16 1:30 - 4:00 Tuesday lecture: Thurs 12/15 4:30-7:00	Office Location: RS 216 When I am available for Office Hours: Monday: 11:15 - 12:15 @ caf (or PBC on request) Tuesday: 11:00 - 12:00 @ office, 12:00 - 1:00 @ caf (or PBC on request), 1:00 - 3:00pm @ office Wednesday: 11:15 - 12:15 @ caf (or PBC on request) Thursday: 11:00 - 12:00 @ office, 12:00 - 1:00 @ caf (or PBC on request), 1:00 - 3:00pm @ office Friday: 11:15 - 12:15 @ caf (or PBC on request)

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.

MICS 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

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.

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 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.

COURSE 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 started during the lab session and due by the following Tuesday night at 8 PM. 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. There is a grace period. Here are the details for credit on labs:

- Code checked and turned in by 8PM Tuesday full credit possible
- Code checked by 8PM Tuesday, but code never turned in 0% possible
- Code checked by 8PM Tuesday and code turned in between 8:01PM Tuesday and noon Wednesday. 70% possible
- Code not checked, but turned in by noon on Wednesday. 70% possible

Note that there is a good chance that there will not be anyone available to check code at the last minute. Code must be checked in person unless you have a pre-approved reason for not attending class in person.

Note that **no labs are accepted after the grace period**, 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
- During the second hour of class lecture

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 Prof or the Lab Assistant

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.

REQUIRED TEXTS AND RECOMMENDED STUDY RESOURCES

Anderson and Franceschi. Java Illuminated: An Active Learning Approach 5th Edition. Jones and Bartlett 2019. We will cover most of chapters 1-9 in this class. The same text is used for CSC 1054.

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. Specific details about how the class meets the credit hour requirements can be provided upon request.

It is anticipated that you will spend a minimum of 37.5 participation hours per credit hour in your course. For this course, students will spend an estimated 113 total hours meeting the course learning outcomes. The time estimations are provided in the Canvas modules and below. The estimated time expectations for this 3 credit course are shown below:

Assignments	Total Course Hours
Reading: Text and Notes	14
Written Assignments	7
Lectures	14
Labs	65
Online Quizzes	5.5
Written and Programming Exams	7.5
TOTAL	113

ASSESSMENT AND GRADING

Course point distribution:

Online quizzes + any other quizzes 10%				
Programming quiz	10%			
Labs 30%				
Midterm Exams	25%	(12.5% for each exam)		
Final Exams	25%	(12.5% for each exam)		

Final grades will be based on the following table with one caveat:

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

A	В	С	D	F
A 93-100	B+ 87-89	C+ 77-79	D+ 67-69	F Less than 59
A- 90-92	B 83-86	C 73-76	D 63-66	
	B- 80-82	C- 70-72	D- 60-62	

Please note that although the lab and the lecture are listed as separate courses in your schedule, they will not be graded separately. Components of each will be applied to your final grade which will be the same for both lecture and lab.

As per the catalog, a passing grade is not sufficient for moving on to the next computer science course. **Those who wish to take the next course must pass with at least 70%.**

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 <u>State Authorization</u> (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

As noted, lab assignments are due on Tuesday at 8PM with a grace period that includes a reduced score. Online quizzes are due by Wednesday at noon. Beyond that, late work is not accepted.

Incompletes will only be assigned in extremely unusual circumstances.

SPIRITUAL CARE

PLNU strives to be a place where students 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 if you have prayer requests, you can contact the <u>Office</u> <u>of Student Life and Formation</u> (<u>https://www.pointloma.edu/offices/student-life-formation</u>).

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 <u>Academic Policies</u> <u>(https://catalog.pointloma.edu/content.php?</u> <u>catoid=52&navoid=2919#Academic_Honesty)</u> 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) 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.

SEXUAL MISCONDUCT AND DISCRIMINATION

Point Loma Nazarene University faculty are committed to helping create a safe learning environment for all students. 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 help and support are available through the Title IX Office at <u>pointloma.edu/Title-IX</u> (<u>http://pointloma.edu/Title-IX</u>). Please be aware that under Title IX of the Education Amendments of 1972, it is 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 <u>counselingservices@pointloma.edu (mailto:counselingservices@pointloma.edu)</u> or find a list of campus pastors at <u>pointloma.edu/title-ix</u> (<u>http://pointloma.edu/title-ix</u>)

Final Exam: Date and Time:

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 th 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.

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.

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.

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 drop date or, after that date, receive the appropriate grade for their work and participation.

Tentative Schedule

			1	
Monday	Tuesday	Wednesday	Thu	Readings
Aug 29 -No Class-	Aug 30 (Monday schedule) Intro	31 JGrasp Lab	Sept 1 Some intro / JGrasp Lab	1.1, 1.3, 1.5
5 No Class	6 Intro	7 Metrics Lab	8 Metrics Lab	2.1-2.3
12 Chapter 3: String and Scanner	13 Chapter 3: String and Scanner	14 DNA stats Lab	15 DNA stats Lab	3.1, 3.6, 3.7, 3.10
19 Objects: Random,	20 Objects: Random,	21 BMI Lab	22 BMI Lab	3.8-3.9, 3.12, 3.13, 3.15

https://canvas.pointloma.edu/courses/63335/assignments/syllabus

9/15/22, 10:00 AM		Syllabus for CS	SC1043-1 FA22 - Introducti	on To Computer Programming
Decimal Format, Math, Wrappers	Decimal Format, Math, Wrappers			
26 Intro to Graphics	27 Intro to Graphics	28 Programming Quiz Business card lab	29 Programming Quiz Business card lab	Chapter 4
3 Intro to If	4 Intro to If	5 If Lab	6 If Lab	5.1 – 5.4
10 More Conditionals	11 More Conditionals	12 Password Lab	13 Password Lab	5.5 – 5.11
17 Written Midterm	18 Written Midterm	19 Programming Midterm	20 Programming Midterm	21 (Fall Break) No Classes
materiii	(Last day of Quad I)			
24 While Loops		26 While Loop lab	27 While Loop lab	6.1 – 6.7
24	Quad I)	26	27	6.1 – 6.7 6.8 – 6.10
24 While Loops 31	Quad I) 25 While Loops 1	26 While Loop lab 2	27 While Loop lab 3	
24 While Loops 31 Other loops 7	Quad I) 25 While Loops 1 Other loops 8	26 While Loop lab 2 Loops Lab 9	27 While Loop lab 3 Loops Lab 10	6.8 – 6.10

Syllabus for CSC1043-1 FA22 - Introduction To Computer Programming

9/13/22, 10:00 AM				
Ethics Lab - virtue	Ethics Lab - virtue	Thanksgiving break (No Classes)	Thanksgiving break (No Classes)	
28 Chapter 9 more 2D arrays + nested loops	29 Chapter 9 more 2D arrays + nested loops	30 2D array lab	1 2D array lab	9.1 – 9.5
5 Review	6 Review	Written Exam II (M/W)	Written Exam II (T/R)	
12	13	14	15 Programming Exam II (T/R)	Friday Dec. 16 Programming Exam II (M/W)

Course Summary:

Date	Details	Due
Thu Sep 2, 2021	Syllabus Quiz (https://canvas.pointloma.edu/courses/63335/assignments/815830)	due by 5pm
Tue Sep 6, 2022	Week 1: jGrasp Lab (<u>https://canvas.pointloma.edu/courses/63335/assignments/815850</u>)	due by 8pm
	Quiz 1A https://canvas.pointloma.edu/courses/63335/assignments/815817)	due by 12pm
Wed Sep 7, 2022	Quiz 1B (https://canvas.pointloma.edu/courses/63335/assignments/815815)	due by 12pm
	Quiz 2A https://canvas.pointloma.edu/courses/63335/assignments/815839	due by 12pm
Tue Sep 13, 2022	Image: Week 2: Metric Report Lab (https://canvas.pointloma.edu/courses/63335/assignments/815851)	due by 8pm

/15/22, 10:00 AM	Syllabus for CSC1043-1 FA22 - Introduction To Computer Programming	
Date	Details	Due
	<u> quiz 3A</u> (https://canvas.pointloma.edu/courses/63335/assignments/815840)	due by 12pm
Wed Sep 14, 2022	Quiz 3B (https://canvas.pointloma.edu/courses/63335/assignments/815824)	due by 12pm
Tue Sep 20, 2022	Week 3: DNA Stats lab (https://canvas.pointloma.edu/courses/63335/assignments/815852)	due by 8pm
Wed Sep 21, 2022	Quiz 4A (https://canvas.pointloma.edu/courses/63335/assignments/815825)	due by 12pm
Wed Gep 21, 2022	Quiz 4B (<u>https://canvas.pointloma.edu/courses/63335/assignments/815838)</u>	due by 12pm
Tue Sep 27, 2022	Week 4: BMI Lab (https://canvas.pointloma.edu/courses/63335/assignments/815853)	due by 8pm
Wed Sep 28, 2022	Graphics with AWT/Swing Quiz (https://canvas.pointloma.edu/courses/63335/assignments/815842)	due by 12pm
Wed Sep 20, 2022	Quiz GraphicsFX (https://canvas.pointloma.edu/courses/63335/assignments/815832)	due by 12pm
Tue Oct 4, 2022	Week 5: Business Card Design Lab (https://canvas.pointloma.edu/courses/63335/assignments/815854)	due by 8pm
Wed Oct 5, 2022	Quiz 6A (https://canvas.pointloma.edu/courses/63335/assignments/815809)	due by 12pm
Wed Oct 5, 2022	Quiz 6B (<u>https://canvas.pointloma.edu/courses/63335/assignments/815831</u>)	due by 12pm
Tue Oct 11, 2022	Week 6: Lab using IF statements (https://canvas.pointloma.edu/courses/63335/assignments/815855)	due by 8pm
	Quiz 7A (https://canvas.pointloma.edu/courses/63335/assignments/815818)	due by 12pm
Wed Oct 12, 2022	Quiz 7B (https://canvas.pointloma.edu/courses/63335/assignments/815841)	due by 12pm
	Quiz 7C (https://canvas.pointloma.edu/courses/63335/assignments/815811)	due by 12pm

9/15/22, 10:00 AM	Syllabus for CSC1043-1 FA22 - Introduction To Computer Programming	
Date	Details	Due
Tue Oct 25, 2022	Week 7: Lab: Password Strength (https://canvas.pointloma.edu/courses/63335/assignments/815856)	due by 8pm
	Quiz 9A (https://canvas.pointloma.edu/courses/63335/assignments/815827)	due by 12pm
Wed Oct 26, 2022	Quiz 9B (https://canvas.pointloma.edu/courses/63335/assignments/815807)	due by 12pm
Tue Nov 1, 2022	Week 9: While Loop Lab (https://canvas.pointloma.edu/courses/63335/assignments/815857)	due by 8pm
Wed Ney 2, 2022	Quiz 10A (https://canvas.pointloma.edu/courses/63335/assignments/815823)	due by 12pm
Wed Nov 2, 2022	Quiz 10B (https://canvas.pointloma.edu/courses/63335/assignments/815813)	due by 12pm
Tue Nov 8, 2022	Week 10: Lab: Sentence Analysis (https://canvas.pointloma.edu/courses/63335/assignments/815844)	due by 8pm
	Quiz 11A (https://canvas.pointloma.edu/courses/63335/assignments/815835)	due by 12pm
Wed Nov 9, 2022	Quiz 11B (https://canvas.pointloma.edu/courses/63335/assignments/815822)	due by 12pm
Tue Nov 15, 2022	Week 11: Array Lab (https://canvas.pointloma.edu/courses/63335/assignments/815845)	due by 8pm
Wed Nov 16, 2022	Quiz 12A (https://canvas.pointloma.edu/courses/63335/assignments/815836)	due by 12pm
Tue Nov 22, 2022	Week 12: Lab: Searching and Sorting (https://canvas.pointloma.edu/courses/63335/assignments/815846)	due by 8pm
Tue Nov 29, 2022	Week 13: Ethics Lab (https://canvas.pointloma.edu/courses/63335/assignments/815847)	due by 8pm
	Quiz 14A (https://canvas.pointloma.edu/courses/63335/assignments/815810)	due by 12pm
Wed Nov 30, 2022	Quiz 14B (https://canvas.pointloma.edu/courses/63335/assignments/815834)	due by 12pm

Date	Details	Due
Tue Dec 6, 2022	Week 14: Lab: Voyager Stats 2D Array (https://canvas.pointloma.edu/courses/63335/assignments/815849)	due by 8pm
	Array programming quiz (https://canvas.pointloma.edu/courses/63335/assignments/815808)	
	Loop tracing quiz (https://canvas.pointloma.edu/courses/63335/assignments/815843)	
	Programming Exam (<u>https://canvas.pointloma.edu/courses/63335/assignments/817519)</u>	
	Programming Final (https://canvas.pointloma.edu/courses/63335/assignments/817521)	
	Programming Final (https://canvas.pointloma.edu/courses/63335/assignments/815812)	
	Programming quiz 1 for Thursday (https://canvas.pointloma.edu/courses/63335/assignments/815819)	
	Programming quiz 1 for Tuesday (https://canvas.pointloma.edu/courses/63335/assignments/815826)	
	Programming quiz 1 for <u>Wednesday</u> (https://canvas.pointloma.edu/courses/63335/assignments/815837)	
	Quiz 5A (https://canvas.pointloma.edu/courses/63335/assignments/815829)	
	Tracing quiz 1 (https://canvas.pointloma.edu/courses/63335/assignments/815828)	
	Vocabulary Quiz for Thursday (https://canvas.pointloma.edu/courses/63335/assignments/815814)	
	Vocabulary Quiz for Wednesday (https://canvas.pointloma.edu/courses/63335/assignments/815821)	
	Written Exam (https://canvas.pointloma.edu/courses/63335/assignments/815859)	
	Written Final (https://canvas.pointloma.edu/courses/63335/assignments/815858)	

Date

Written Final Exam Remote (https://canvas.pointloma.edu/courses/63335/assignments/815820)