CSC154
Objects and Elementary Data Structures (4 Units)
Spring 2018

Point Loma Nazarene University
College of Natural and Social 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
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619 849 2269
RS 216

Meeting Times and Locations:

Lecture: T/R: 1:30 – 2:45 (LA102)
Lab: R: 3:00 – 4:45 (Main Lab in Ryan Library)

Office Hours:

M: 10:30 – 11:30, 1:30 – 2:30, 4:00 – 5:00
T: 3:00 – 5:00
W: 11:00 – 11:30, 1:30 – 2:30
R: 12:15 – 1:15
F: 10:30 – 11:30, 1:30 – 2:30

Books:

Java Illuminated 4th edition. By Julie Anderson and Herve Franceschi

Course Description:

As a continuation of CSC 143, 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. Lecture three hours and laboratory two hours each week. Prerequisite(s): CSC 143 with a grade of C- or higher.

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.

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:

Lectures: I would suggest looking at the book before coming to class, but it is not required.

Missed Classes: Labs missed due to PLNU activities (i.e., sports teams, choirs, etc), should be turned in the next lab the student is back. Missed Exams must be scheduled before the student leaves (exception is dire circumstances). It is the student's responsibility to inform the professor of when they will be gone. In-class work will be waived for excused events.

Labs: Labs are used to give students a way to practice the concepts studied in lecture. They will be composed of a practical and a theoretical (written) section. 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, on paper AND all code and necessary data files turned in online on canvas. It should be well commented. Code missing comments will not be given full credit.

As in CSC143, there will be lab hours where a lab assistant will be available to answer questions or sign off on the lab. Students may also come by Dr. Mood's office hours to ask questions and/or request their lab to be signed off.

Labs should be turned in, at latest, at the beginning of next lab; if you don't have it checked off by the time lab starts, you can only run the lab once for the lab assistants; They will check it as soon as they are ready. I will not accept late labs. Partial credit will be given, so please turn in whatever is done.

Programming Quizzes: There are two programming quizzes throughout the semester.

Study Questions: Questions from the book will periodically be given out; these questions will contain the concepts and the types of questions, which I will ask on exams.

Cheating: If you use online resources, you must site the direct URLs in the labs you turn in. You should not copy another student's work. You should not copy code from online (exception: looking up how to call functions or use built-in classes.). Unless otherwise noted, talking and working with fellow students to understand concepts is OK. If you are concerned, simply ask myself or the lab assistant for help.

Rule of thumb: everything you turn in you should be able to completely explain. Meaning, if I call you into my office to explain your work, you should be able to.

Final: The final time is listed in the schedule.

Cell Phones & Laptops: Please don't use them in class unless we are doing a demonstration or asked to use them. An occasional peek is OK, but ignoring what is going on in class is not.

Be Courteous and Respectful. Be respectful to me. Be respectful of each other. It is highly distracting to me to see someone doing something else while in my class. This includes things like listening to music during my lecture. Do not do work for any other class inside of this one. Students violating the above rules may be asked to leave class for the day and will receive a 0 for all in class work.

Grading:

Programming quizzes	15%
Labs	30%
Midterm	25%
Final	30%

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

Attendance:
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 http://catalog.pointloma.edu/content.php?catoid=24&navoid=1581#Class_Attendance 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.

Academic Accommodations:
If you have a diagnosed disability, please contact PLNU's Disability Resource Center (DRC) within the first two weeks of class to demonstrate need and to register for accommodation by phone at 619-849-2486 or by e-mail at DRC@pointloma.edu. See Disability Resource Center for additional information. For more details see the PLNU catalog:
http://catalog.pointloma.edu/content.php?catoid=24&navoid=1581#Academic_Accommodations

Students with learning disabilities who may need accommodations should discuss options with the instructor during the first two weeks of class.

Academic Honesty:
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 http://catalog.pointloma.edu/content.php?catoid=24&navoid=1581#Academic_Honesty for definitions of kinds of academic dishonesty and for further policy information.

Final Exam: May 1st at 1:30
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.

Copyright Protected Materials:

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.

Credit Hour:
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 15 weeks. Specific details about how the class meets the credit hour requirements can be provided upon request.

Schedule

Monday	Tuesday	Wednesday	Thu	Friday
Jan: 8	9:	10:	11: Array Lists, 9.7 Array list lab	12
15 (no classes)	16 7.1-7.6	17	18 7.7-7.9 Class lab 1	19
22	23 7.10 – 7.11	24	25 10.1 – 10.2 Class lab 2	26
29	30 10.3 – 10.6	31	Feb 1 11.1 – 11.4 **in lab quiz &** take home lab (inheritance & debugging)	2
5	6 11.1 – 11.4	7	8 12.1 – 12.3 lab: files exceptions	9
12	13 Interface: 10.8	14	15 12.4-12.6 lab: gui lab 1	16
19	20 NDSS	21	22 12.12 – 12.13 gui lab 2	23
26	27 **written exam**	28	1 lecture TBD **Programming exam**	2
5 (spring break)	**6**	**7**	**8**	**9 (spring break)**
12	13 12.7 & 12.9	14	15 12.10 & 12.11 Timer lab	16

19	20 12.4 **Project start [counts as lab grade]**	21	22 13.1 – 13.3 Lab recursion	23
26	27 13.5, 13.7	28	29 **Easter Break**	30 **Easter Break**
2 **Easter Break**	3 14.1	4	5 14.2 **Project due** Lab LL	6
9	10 14.3-4	11	12 8.6 **in lab quiz and take home lab** lab: queue	13
16	17 14.8	18	19 lecture TBD lab: stack	20
23	24 review	25	26 **Written Final** Lab: practice / stack due at beginning of lab	27
30	1 **Programming final @ 1:30**	2	3	4