CS 31: Introduction to Computer Science I

Computer Science Department
University of California, Los Angeles
Summer 2021

SYLLABUS

Course Objectives

In this course, you will learn the foundation concepts and principles of computer science; fundamental computer programming principles, methodologies, and techniques; and basic concepts of programming in general and the C++ language specifically.

Course Website

The URL for the course website is https://ccle.ucla.edu/course/view/211A-COMSCI31-1. This site will show publicly available information to you about the course. You should login to access additional private course materials I have made available to you there. You must check the site for announcements at least every other weekday. You must also check your email as regularly.

Instructor and Class Meetings

<table>
<tr><td colspan="3">Lecture 1
Online via Zoom - Join URL https://ucla.zoom.us/j/97875234749?pwd=ZS91Mjc2MVd0aGJmU0tWU0JBMEdnZz09
10:00-11:50AM Mondays/Wednesdays
Howard A. Stahl
hstahl@cs.ucla.edu</td></tr>
<tr><td>Discussion 1A
Online via Zoom - Join URL
https://ucla.zoom.us/j/99807575351?
pwd=SGRMRGV3WUVLbWVJVUp2ZThLeDJSQT09
Fridays 10:00-11:50AM
Aishni Parab
aishni@cs.ucla.edu</td><td>Discussion 1B
Online Via Zoom Join URL
https://ucla.zoom.us/j/99486180814?
pwd=V2lPZWhGMDQxM0JobFdIUU9iTzczdz09
Fridays 12:00-1:50PM
Qianru Li
qianruli@cs.ucla.edu</td><td>Discussion 1C
Online Via Zoom - Join URL
https://ucla.zoom.us/j/94942050365?
pwd=ZWQ0cTB6SXZqT0NLRUt3VTZrTTlpdz09
Fridays 2:00-3:50PM
Manoj Dareddy
mdareddy@cs.ucla.edu</td></tr>
</table>

Office Hours for instructors, teaching assistants and learning assistants are on the class web page.

Zoom Guidelines

This class' lectures, office hours and exams are being conducted over Zoom. No recording by other means is permitted. All class lectures (but not office hours) will be posted at the CCLE class website for playback at a later time. This playback ability means that attendance at the scheduled class time is not strictly required. If you have privacy concerns and do not wish to appear in the recording, do not turn on your video. If you also prefer to use a pseudonym instead of your name, please let me know what name you will be using so that I know who you are during the session. If you would like to ask a question, you may do so privately through the Zoom chat by addressing your chat question to me only or publicly to "Everyone" if you feel your question is more generally applicable to all.

Recordings will be deleted when no longer necessary. However, the recording may become part of an administrative disciplinary record if misconduct occurs during a videoconference. Please remember that in the College's remote learning environment, your home has become your classroom. When you share your video camera during a Zoom session, everyone in the class can see you. This visibility has created issues resulting in complaints at UCLA and other institutions. These issues have included students brandishing weapons, wearing inappropriate attire for the classroom, sharing pornographic content, making obscene gestures, and disrupting the learning environment in other ways. All regular College rules apply during a classroom, office hour or exam Zoom session, including those stating that each student should:

- Not engage in disruptive behavior
- Not engage in willful disobedience of the directions of your instructor
- Not abuse other students or College personnel
- Conduct oneself in a courteous and respectful manner in communications and actions toward members of the campus community

If you share your video:

- Be appropriately attired for the classroom session
- Do not have any images visible that would be inappropriate in the classroom
- Do not have any firearm or weapon visible for others to see
- Do not make any obscene gestures (e.g., flipping off someone)
- Do not smoke or drink alcohol or be under the influence of drugs or alcohol

Schedule of Lecture Topics and Exams

Week	Date	Topics	Book	Project Due Dates - 9 PM
1	June 21	Introduction/Development Tools	Chapter 1	
	June 23	Basics	Chapter 1	

2	June 28	Basics	Chapter 1	Project 1
	June 30	Control Flow		
3	July 5	HOLIDAY: NO CLASS		
	July 6			Project 2
	July 7	Loops	Chapter 2	
4	July 12	Functions	Chapter 2	
	July 14	Parameter Passing	Chapter 3	Project 3
5	July 19	Midterm		
	July 21	Arrays	Chapter 5	
6	July 26	Structs and Classes	Chapter 6	Project 4
	July 28	Strings	Chapter 9	
7	Aug 2	Pointers	Chapter 10.1–10.2	
	Aug 4	More On Classes	Chapters 7 & 8	Project 5
8	Aug 9	Review		
	Aug 11	Final Exam		
	Aug 13			Project 6

Textbook

The official course textbook is Absolute C++, Sixth, Fifth or Fourth Edition, by Walter Savitch, Addison Wesley, 2013 or 2010, with or without MyProgrammingLab or any other publisher extras.

Lecture and Discussion Sections

Lectures will present material from the course textbook, supplemented by additional subject matter. You are responsible for *all* material presented in *all* lectures.

In discussion sections, your TA will review material covered in the lectures, present subject matter not covered in the lectures, discuss programming projects, and answer questions.

Assignments

You cannot learn how to write programs without writing programs. There will be seven programming projects. Each project specification will detail any requirements that differ from the general project requirements. Your program correctness score is based on your program's correctness as determined by our testing. The amount of time you spent working on the program is irrelevant; indeed, if you follow our software development advice, you'll probably spend less time and get a higher score than if you don't.

Since six programs cannot give you experience with all the material in the course, an assignment may contain, in addition to a primary programming project, some tasks more in the nature of homework. These may require you to answer some questions and analyze or write small programs. Some of the work you put into the homework will do double duty: it will help you with a programming project or will serve as a good study guide for an exam. If you are seriously interested in mastering the course material, you will do every homework problem, even though not every problem of every homework assignment will be graded. (You won't know which problems won't be graded.)

Programming projects and homeworks are due at 9 PM on the dates listed below. Late submissions will be penalized by 0.0027778% per second (which comes to 10% per hour), making a submission worthless if submitted after 7 AM the next morning.

Project 1	Monday, June 28
Project 2	Tuesday, July 6
Project 3	Wednesday, July 14
Project 4	Monday, July 26
Project 5	Wednesday, August 4
Project 6	Friday, August 13

Examinations

The midterm will cover material from the lectures and the textbook. The final examination will cover material from the entire course. Missing the final for any reason will result in a final exam score of zero. Exams will require students to be online proctored via Zoom so they can be viewed taking the exam. Students should plan in advance to secure internet access for the hours while the exam is underway in a quiet and appropriate place that minimizes potential disruptions.

Given that many students will be completing this course from far-away, one of our first tasks during the first day of class will be to complete a poll so that I can organize an alternative time window for each exam that will not require students to be online at 2AM in their local time zone. This alternate time will be announced in advance. Each student will have the option of using either the regularly scheduled class time to complete their exam or the alternate time window announced.

Grading

Your grade in the course will be determined from your total score, although a final exam score below 40 may subject you to a failing grade regardless of your total score. The total score is determined from the graded materials as follows:

Assignments	40%
Midterm exam	25%
Final exam	35%

The total points you earn from assignments (scaled to 0 through 100) will be capped at 30 points above the mean of your exam scores (scaled to 0 through 100). For example, if you average 90 on the assignments, your midterm score is 60, and your final is 40, then your assignment average is treated as only 80 (because that's 30 more than the mean of 60 and 40). In other words, your assignment scores won't count fully if you can't show from your exam scores that you learned what you should have from the assignments.

A request for reconsideration of the grading for an item must be made within one week of our sending you your score for that item.

You will not earn points on any of your coursework unless you have signed and turned in the Academic Integrity Agreement.