CPSC 230: Computer Science I

Fall 2024

Course Syllabus

General Information

Instructor: Mr. Samuel Bernsen

Email: sbernsen@chapman.edu

Lecture: M/W/F 10:00 – 10:50 am, Swenson N214 (KC N214)

Office Hours: TBD

Course Description

Students are introduced to problem-solving methods and algorithm development through an interactive and easy-to-learn programming language, Python. CPSC 230 is a 3-unit course.

Course Learning Outcomes

 A student successfully completing this course will be able to:

1. Analyze and understand existing programs

2. Design new programs by transforming, expanding, and modifying existing programs

3. Recognize primary data types and program structures

4. Match computing concepts with their definitions

5. Demonstrate ability to express software solutions for problems from various domain areas

Program Learning Outcomes

The Chapman experience creates outcomes which are consistent with our identity. Similar to the General Education program, each degree program, or major, at Chapman has a unique set of learning outcomes, or student abilities that are not only related to Chapman's institutional mission and goals, but also unique to the student's discipline or field of study. For more information, [Fowler School of Engineering Program Learning Outcomes](#).

General Education Learning Outcomes

Students create sophisticated arguments supported by quantitative evidence and can clearly communicate those arguments in a variety of formats (using words, tables, graphs, mathematical equations, etc., as appropriate).

Overview

CPSC 230 is an introductory course designed to introduce students to the field of computer science in general and computer programming in particular. After a brief coverage of fundamental computer architecture, students will learn the foundations of software development. Topics include basic program organization, data types, conditionals, repetition, functions, and file I/O.

Supplementary Textbook

The Practice of Computing Using Python, Author: Punch & Enbody, Publisher: Pearson, Edition: 3rd (March 10, 2016)

Course Materials

All course materials will be made available via the course site on Canvas when possible. Canvas will also be used for submitting assignments, viewing grades, etc.

Course Grade Breakdown

Letter grades in the class will be assigned according to the following breakdown:

Grade	Letter Grade
93+	A
90-92.9	A-
87-89.9	B+
83-86.9	B
80-82.9	B-
77-79.9/73-76.9/70-72.9	C+/C/C-
67-69.9/63-66.9/60-62.9	D+/D/D-
<60	F

You must score a 70 or above to receive a P when taking the course P/NP.

Assignments

Homework will consist of programming assignments to reinforce material covered in class and must be submitted electronically. You can expect about one assignment per week. They will typically be due at 11:59 pm on the given date and will be submitted through Canvas. All programs must be written in Python unless otherwise specified. You may develop on any platform you like, but please make sure your code runs the way you intend on a machine with Python3 installed or a virtual environment. Grading will be based on correctness, elegance of solution, and style (comments, naming conventions, etc.)

Late Policy

As I know life can get hectic and occasionally everything does not go to plan, you will be allowed 3 late days or grace periods on assignments for the semester. These can only be used in 24 hour increments, i.e. – if you submit an assignment 3 hours late or 22 hours late, 1 of your 3 days will be used. If you would like to use a late day, please state so in a comment at the top of your program. You do not need to ask me to use a late day.

No late work will be accepted outside of this policy. **This includes instances of not hitting submit or submitting incorrect files. You are responsible for ensuring the correct files are submitted by the deadline.** The timestamp on a file that missed a deadline is not valid.

Participation and Quizzes

It is expected that students attend every lecture. Since **I am here to help you** in your academic journey, you are not required to attend all lectures. As such, I will not take

attendance for a grade. However, there will be occasional quizzes on the reading and lecture material, which will account for your participation grade. IF YOU MISS A QUIZ, YOU MAY NOT MAKE IT UP. Despite attendance not being mandated, I would like everyone to show up to class to enhance the learning experience for you, your peers, and myself.

Exams

There will be a midterm and a final exam, which must be taken on the dates specified. NO MAKEUP EXAMS WILL BE ADMINISTERED, EXCEPT FOR EMERGENCIES.

Rough Course Schedule

Week	Topics	ZyBooks Sections
8/26/24	Course Overview Intro to CS Hello World!	
9/2/24 (2 classes because of Labor Day)	Python Basics	
9/9/24	Python Basics Conditionals	
9/16/24	While Loops Strings	
9/23/24	Strings For Loops	
9/30/24	Exam 1 Functions	
10/7/24	Functions Collections (Lists and Tuples	
10/14/24	Functions	
10/21/24	Collections (Dictionaries and Sets) File Processing	
10/28/24	Exam 2 File Processing	
11/4/24	Exceptions	
11/11/24	Object-Oriented Concepts	
11/18/24		
11/25/24	Thanksgiving Break	
12/2/24	Wrap-up and Final Review	

Grading Percentages Breakdown (subject to change):

Attendance/ Participation (Participation Activities*, in-class activities, quizzes)	15 %
Challenge Activities*:	5%
Programming Assignments	40 %
Midterm Exam:	15 %
Final Exam:	25 %

*completed with the ZyBooks

Assignment Grading

All assignments will be graded by myself. Any questions concerning late submission or assignment grade inquiries should be directed to me via email or in person. Feel free to ask me questions before or after class to clarify any confusion regarding grading.

Final Exam Time

TBD

Collaboration Policy

You have much to learn from your colleagues, and so I encourage you to discuss and study course material together. However, all work you submit for this course must be your own, and must be completed individually unless otherwise specified. More specifically, you may not present source code or programs copied from the Internet, other texts, other students, etc. as your own work. Of course, you are free to use whatever *reference* materials you like, but please cite them in a README turned in with your assignments. A README is a .txt document with a list of all reference materials used to aid in the assignment as well as names of other classmates you collaborated with. I assume you are familiar with Chapman's policy on academic misconduct, it is presented below and any incidents of academic misconduct or dishonesty will be dealt with severely in accordance with this policy.

Use of LLMs

Given that large language models and other generative machine learning models are extremely useful for everyday tasks, I am okay with your use of these kinds of tools (Llama, ChatGPT, Gemini, etc.) for help debugging code. However, you will receive a 0 on any assignment, quiz, or test that is solely produced by an LLM. I highly suggest that you attempt to fix errors by yourself or with peers before consulting one of these tools. This is an introductory course designed to build your foundational knowledge of computer science. The more you rely on these tools, the more you will need them in the future to support your success.

Expectations and Technology

I expect that everyone will maintain a classroom conducive to learning. I like an informal atmosphere, but it must be orderly. Thus, everyone is expected to behave with basic politeness, civility, and respect for others. In particular, talking in class is okay if it's part of a class discussion or with me. Private communications are not permitted, especially during exams. Neither are reading extraneous materials, using electronic equipment off task, or sleeping. As this is a Computer Science class, technology is allowed to aid in learning and understanding material. However, please do not use a personal device for any purpose unrelated to our class. All devices should be silenced. Cell phones should be put away. Suggestions for improvement are welcome at any time. Any concern about the course should be brought first to my attention.

Technology Requirements

This course will require your use of an IDE (integrated development environment) such as VSCode and [Python](version 3+) OR a cloud service such as Google Collaboratory or GitHub Codespaces. We will walk through installation and use in class, however, it is your responsibility to ensure you have a working computer with the required software installed and functional for this course.

Chapman University's Academic Integrity Policy

Chapman University is a community of scholars that emphasizes the mutual responsibility of all members to seek knowledge honestly and in good faith. Students are responsible for doing their own work and academic dishonesty of any kind will be subject to sanction by the instructor/administrator and referral to the university Academic Integrity Committee, which may impose additional sanctions including expulsion. Please see the full description of Chapman University's policy on [Academic Integrity](#).

Chapman University's Students with Disabilities Policy

In compliance with ADA guidelines, students who have any condition, either permanent or temporary, that might affect their ability to perform in this class are encouraged to contact the Office of Disability Services. If you will need to utilize your approved accommodations in this class, please follow the proper notification procedure for informing your professor(s). This notification process must occur more than a week before any accommodation can be utilized. Please contact Disability Services at (714) 516–4520 if you have questions regarding this procedure or for information or to make an appointment to discuss and/or request potential accommodations based on documentation of your disability. Once formal approval of your need for an accommodation has been granted, you are encouraged to talk with your professor(s) about your accommodation options. The granting of any accommodation will not be retroactive and cannot jeopardize the academic standards or integrity of the course.

Chapman University's Equity and Diversity Policy

Chapman University is committed to ensuring equality and valuing diversity. Students and professors are reminded to show respect at all times as outlined in Chapman's Harassment and Discrimination Policy. Please review the full description of Harassment and Discrimination Policy. Any violations of this policy should be discussed with the professor, the Dean of Students and/or otherwise reported in accordance with this policy."

Student Support at Chapman University

Over the course of the semester, you may experience a range of challenges that interfere with your learning, such as problems with friend, family, and or significant other relationships; substance use; concerns about personal adequacy; feeling overwhelmed; or feeling sad or anxious without knowing why. These mental health concerns or stressful events may diminish your academic performance and/or reduce your ability to participate in daily activities. You can learn more about the resources available through Chapman University's Student Psychological Counseling Services.

Fostering a community of care that supports the success of students is essential to the values of Chapman University. Occasionally, you may come across a student whose personal behavior concerns or worries you, either for the student's well-being or yours. In these instances, you are encouraged to contact the Chapman University Student Concern

[Intervention Team](#) who can respond to these concerns and offer assistance. While it is preferred that you include your contact information so this team can follow up with you, you can submit a report anonymously. 24-hour emergency help is also available through Public Safety at 714-997-6763.

Religious Accommodation

Religious Accommodation at Chapman University Consistent with our commitment of creating an academic community that is respectful of and welcoming to persons of differing backgrounds, we believe that every reasonable effort should be made to allow members of the university community to fulfill their obligations to the university without jeopardizing the fulfillment of their sincerely held religious obligations. Please review the syllabus early in the semester and consult with your faculty member promptly regarding any possible conflicts with major religious holidays, being as specific as possible regarding when those holidays are scheduled in advance and where those holidays constitute the fulfillment of your sincerely held religious beliefs.

Changes

This syllabus is subject to change. Updates will be posted on the course website.