

CSC 140: Foundations of Computer Science Block 2 - 2022

Instructor: Lauren Jepsen Email Address: <u>ljepsen@cornellcollege.edu</u>
Office: West Hall, 212 Office Hours: M, Th-F 11-11:30, M-F 3-3:30

Classroom: West Hall 320 (M) & 200 (A) or by appt.

Class Meetings:

Class will generally meet from 9-11 (West 320) and 1-3 (West 200). The 2nd-4th Wednesday of the block, class will meet from 8:30-11:30.

Required Materials:

Students will need access to a computer with the internet. If you just have a Chromebook or iPad, you may need to use a lab computer to complete assignments.

Text: How to Think Like a Computer Scientist: Interactive Edition by Miller, Ranum, et. al., https://runestone.academy/runestone/books/published/thinkcspy/index.html

Course Description:

This course will introduce you to the field of Computer Science and programing in the Python language.

Course Goals:

- Introduce Computer Science as a multi-faceted field
- Develop skills and confidence programming in the python language

Course Structure:

The best way to learn computer programming is to do computer programming. The morning class period will be reserved for a hopefully brief lecture, followed by a 'lab' period where you will get the chance to practice what we discussed in lecture.

Grading Policies:

Exam 1 (15%) Lab Participation (15%) Exam 2 (20%) Homework (15%)

Exam 3 (20%) Presentation (5%)

Class Attendance (5%) Notes (5%)

Grading Scale:

Percent	Letter Grade
93-100	Α
90-92.99	A-
87-89.99	B+
83-86.99	В
80-82.99	B-
77-79.99	C+
73-76.99	С
70-72.99	C-
67-69.99	D+
63-66.99	D
60-62.99	D-
below 60	F

Exams (55%):

Exams will be given on the 2^{nd} through 4^{th} Wednesday mornings (8:30 – 11:30) of the class. Exams will be designed to take 1.5 hours to complete, but you will have until 11:30 to complete the exams.

Attendance (5%):

Your presence and participation in class is essential for your learning and engagement with the course. With this in mind, you will be allowed one unexcused absence before your grade is affected. If you are ill and need to isolate, I expect you to attend and participate in class over zoom - failure to do so, unless you are seeing a health professional, will count as an unexcused absence. Zoom sessions are reserved for serious illness and COVID concerns.

After one unexcused absence from a class session, your attendance grade will drop for each additional absence. Missing more than 15 minutes of class will also be considered an absence. If you need to be absent due to illness or emergency, let me know as soon as possible so we can make other arrangements.

Lab Participation (15%):

During class you will frequently be asked to work in small groups to complete assignments. It is expected that every member of the group to participate and work together to complete assigned tasks. While groups will turn in one copy of the lab report for the whole group, everyone is expected to fill out their own lab assignment. Failure to participate will result in a No Credit for an assignment. If you are absent for all or part of lab, you will be expected to submit the lab on your own for credit. Groups will change periodically throughout the block. Before groups switch, you will have the chance to assess your participation, as well as the participation of your group members. These assessments will count towards the Lab Participation grade.

Homework (15%):

Homework will be assigned most nights and will be due at 1:00 pm before the start of the following afternoon class session. Homework will be graded out of 5 points. A 5-point assignment are complete and functional. A 4-point assignment will be complete and mostly functional, it may have a few minor flaws. A 3-point assignment will be complete but perhaps have a few major flaws. A 2-point assignment will be mostly complete. Finally, a 1-point assignment will be an assignment that was started but not completed. *Late homework will not be accepted.*

Presentation (5%):

On the fourth Tuesday of the block, you will be expected to give a brief 5-7 minute presentation on some topic related to computer science. You may choose to focus on a Turing Award recipient, an interesting application of computer science, a different programing language, a python package or function not covered in our course, or if you are particularly ambitions you may complete a final project and present on that. You may also choose to work with a partner for the presentation, but in that case, I expect the presentations to be 10-14 minutes. This is designed to be a fun, open-ended exploration of the field.

Notes (5%):

Taking notes and studying is a key part to academic success. To help encourage good studying habits, as well as to allow you to show your growth as a student, I will be collecting notebooks from you before the exams. These can be handwritten, Jupyter notebooks, or some other format that best suits your study style. The notebooks should contain definitions of key terms, explanation of key concepts and examples of code with each line commented explaining what the line of code does.

Academic Integrity and Honesty

Cornell College expects all members of the Cornell community to act with academic integrity. An important aspect of academic integrity is respecting the work of others. A student is expected to explicitly acknowledge ideas, claims, observations, or data of others, unless generally known. When a piece of work is submitted for credit, a student is asserting that the submission is her or his work unless there is a citation of a specific source. If there is no appropriate acknowledgment of sources, whether intended or not, this may constitute a violation of the College's requirement for honesty in academic work and may be treated as a case of academic dishonesty. The procedures regarding how the College deals with cases of academic dishonesty appear in The Catalogue, under the heading "Academic Honesty."

Mental Health

As a college student, you may sometimes experience stress, anxiety, or other mental health challenges that affect your mood, energy level, concentration, and mental ability. Cornell recognizes that you may experience these challenges and provides resources to help you take charge of your mental health and overall well-being. If you, a classmate, or a friend experience mental health challenges at Cornell, please check out the Counseling Center's website (www.cornellcollege.edu/counseling) for many resources on and off campus, and you can call the Counseling Center at 319-895-4292 for more information or to make an appointment. Visit the Student Gateway (https://www.cornellcollege.edu/students/index.html)

and the Cornell Well-being Network (https://www.cornellcollege.edu/well-being-network/) websites for additional student re-sources.

Disabilities and Accommodations

Cornell College makes reasonable accommodations for persons with disabilities. Students should notify the Office of Academic Support and Advising and their course instructor of any disability related accommodations within the first three days of the term for which the accommodations are required, due to the fast pace of the block format. For more information on the documentation required to establish the need for accommodations and the process of requesting the accommodations, see http://www.cornellcollege.edu/academic-support-and-advising/disabilities/index.shtml.

COVID Policies

Mask Policy for Block 2

At this time, masks are not required during in-person instructional time in this class. However, there are many good reasons to wear a mask, and many of us will choose to do so. Not all members of our community are able to be vaccinated, and masking is an effective way to protect these individuals. Regardless of any individual's decision to wear a mask, I expect that we will all be considerate of each other.

If evolving COVID-19 conditions warrant, I reserve the right to require masks during all in-person instructional time in this class, regardless of the individual immunity status of members of the class. If we do need to shift to a required mask policy, I expect that all students will comply. Non-compliance would result in a conduct report to the Dean of Students, which could result in removal from the course.

Illness Policy

If you are experiencing COVID-19 symptoms, do not attend class. Perform a home test or contact Director of Student Health Services Lynn O'Brien at student health@cornellcollege.edu immediately to arrange a COVID-19 test at the Health Center.

If you need to isolate due to COVID-19, or if you become unable to attend class for any other health reason, contact me as soon as possible to determine if you are able to continue in the class. A Withdrawal for Health Reasons may be required.

Positive COVID Test Policy

If you test positive: Please isolate yourself in your room, contact Director of Health Services Lynn O'Brien at student_health@cornellcollege.edu and wait for instructions. A representative from Student Health will contact you to discuss your test and provide you with instructions for isolating and begin contact tracing of on-campus interactions.

If you test positive for COVID-19 during the block and need to isolate, you need to inform me directly; the Health Center cannot inform me on your behalf.

Close Contact Policy

If you are named as a close contact of someone who has tested positive on campus, you will be notified by Student Health. (If you learn that you have been in contact with someone who has tested positive from an off campus exposure, you must inform Director of Health Services Lynn O'Brien at student_health@cornellcollege.edu. We will determine your status and next steps using the CDC guidelines. To prepare for the possibility of needing to conduct contact tracing, we will have assigned seating.

Caregiver Statement

I am a caregiver for an unvaccinated children. If they must quarantine or isolate during the block, I may need to shift portions of the course online. If this happens, I will communicate with you as soon as possible via email and provide a Zoom link to our next class meeting.

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Tentative Course Schedule

Day	Topics	Assignments Due
0: M 9/26	Introduction to Python and Debugging	Read the Syllabus, Chapter 1
	Introduction to Variables and Data Types and	Chapter 2, Chapter 3,
1: T 9/27	Debugging	Homework 0
2: W 9/28	The For loop	Chapter 4, Homework 1
		Chapter 5, Chapter 6,
3: Th 9/29	Modules, Functions and Turtle	Homework 2
4: F 9/30	Selection, Boolean Expressions	Chapter 7, Homework 3
5: M 10/3	For and While Loops	Chapter 8, Homework 4
6: T 10/4	Strings	Chapter 9, Homework 5
7: W 10/5	Exam-0 (Ch. 1-8, Ch 9.1 to 9.12)	Notes Part 0
8: Th 10/6	Lists and Tuples	Chapter 10
9: F 10/7	Numpy Arrays	Homework 6
		Chapter 11, Chapter 12, Project
10: M 10/21	Dictionaries and Files	Proposal, Homework 7
11: T 10/22	Exceptions, Review	Chapter 13, Homework 8
12: W 10/23	Exam-1 (Ch 9-12 and Arrays)	Notes Part 1
13: Th 10/24	Recursion	Chapter 16, Homework 9
		Sort Algorithms Reading,
14: F 10/25	Sort Algorithms	Homework 10
	Web Applications OR GUI Creation – Vote in	
15: M 10/28	Class	Chapter 14 or 15, Homework 11
16: T 10/1	Presentation	Presentation
17: W 10/2	Exam-2 (Comprehensive)	Notes Part 3