

Fall 2019 CS 161 syllabus

Course: CS 161 – Introduction to Computer Science I

Credits: 4

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Two fundamental rules

1. You are responsible for knowing the contents of the syllabus and all of the information about the course provided on Canvas.
2. You are responsible for knowing the contents of instructor announcements made on Canvas, which means that you should make sure you receive such announcements and that you check for new ones at least once a day.

Response times

When you email your TA or us (the instructors), you should expect a response within 24 hours. You should expect your assignments to be graded within four days of the due date.

OSU catalog course description, including pre-requisites/co-requisites

Overview of fundamental concepts of computer science. Introduction to problem solving, software engineering and object-oriented algorithm development and programming. Lec/lab. PREREQS: MTH 111 or Placement Test or Placement Test or MTH 112* and for CS Double Degree students: BA/BS and (MTH 111 or MPT \geq 24 or MPAL \geq 061)

Course content

- variables and data types
- assignment, input/output, casting
- conditionals, iteration
- functions
- recursion
- classes and objects
- string manipulation, lists

- tuples, mutability vs. immutability
- object references and identity
- dictionaries, sets

Course Learning Outcomes

At the completion of the course, students will be able to...

1. **Design** and **implement** programs that require
 - various control statements involving selection and repetition
 - expressions with variables, constants, function calls, and arithmetic/relational operators with mixed data
 - lists, strings, and other data structures
 - library functions and programmer-defined functions with parameter-passing
2. **Define** and **use** classes and objects
3. **Debug** programming syntax and run-time errors.
4. **Describe** and **apply** basic software engineering design principles and software quality factors.

Required textbook: None

Course tools

- Canvas is the course management software used for this course.
- PyCharm is an IDE (integrated development environment) for Python. It's where you'll write your programming assignments.
- Gradescope is the site where you'll submit your code for the assignments.
- Repl.it is a Python environment that can be embedded in Canvas pages. It's what runs the interactive exercises at the end of each lesson page.
- Piazza is an asynchronous Q&A discussion forum where you can get official answers from the instructor.
- GitHub is a popular tool for hosting version-controlled code repositories.
- Slack is a synchronous discussion forum where I will hold office hours, and which is also for more casual conversation with fellow students.

More information about these tools is available on the "Tools you will need" page, in the "Start here" module in Canvas.

Coursework and Grading Policies

- Your code will be tested to make sure it works correctly. It is your job to make sure that your code will behave correctly for any possible tests. I provide one simple test on Gradescope for which you get immediate feedback. The remaining tests are "hidden" until the due date has passed.
- Late submissions are not graded. It is better to submit an incomplete program on time for possible partial credit than to not have your program graded at all.
- All assignments are due at **11:59pm Pacific Time**. Be aware of what time zone Canvas is using to display deadlines. If it's not your local time zone, you can set it to be. The Canvas phone app always displays times for the time zone the phone is in. This is important to keep in mind if you will be traveling.
- Always ask first before using any commands or constructs that we haven't covered yet, otherwise you may lose points. The main reason for this is that I don't want you to circumvent using material that the assignment was designed to make you practice.
- If you disagree with a score on any coursework, contact your TA by email within one week of receiving your grade. If you are dissatisfied with your TA's response (or if they neglect to respond at all), then you should contact me about it.
- There is no extra credit.
- I don't plan to "curve" the grades, but that's something I'll re-assess at the end of the term.
- Makeup exams will only be given for exams excused in advance by the instructor.
- Incompletes will be given very rarely. If you have been doing well in the course so far, but an emergency comes up that prevents you from continuing according to schedule, let me know as soon as you can.

Weights for Grading

Assignments	70%
Quizzes	30%

Letter Grade Percentages

93-100%	A	80-83%	B-	67-70%	D+
90-93%	A-	77-80%	C+	63-67%	D
87-90%	B+	73-77%	C	60-63%	D-
83-87%	B	70-73%	C-	0-60%	F

Being Mentally Prepared

Learning computer programming can be quite challenging for most people. You should expect to spend 16-20 hours/week. However, that is only an estimate. Some people will find the material more challenging than others - those people may require more time.

Other people in the course may have more background in the subject than you do. Don't feel intimidated or put off if other students talk on the discussion board about topics that we haven't covered yet (or may not cover in this class at all). What's important is that you understand what we have covered.

Taking online courses tends to feel more isolated than taking on-campus courses. Even though there are still all the normal course elements - lectures, readings, homework, a teacher whom you can ask questions, etc. - sometimes students in an online course will feel like they are "teaching themselves" because interactivity in such a course is less forced and less immediate. I can't see or hear you, so I can't judge whether you're having trouble by your tone or expression. I am always happy to help, but you have to take the initiative and let me know when you run into problems.

Getting Help

When you have a question about something, the order of steps you should take to pursue answers is roughly the following:

1. Review the relevant materials (assignment description, readings, lectures).
2. Search the class discussion board on Piazza (it can take some practice to learn how to refine your searches well) to see if your question has been answered already.
3. Post to the class discussion board on Piazza (by doing #1 and #2 first, you might save yourself asking a question, and you might also then be better able to help others). When you post a question on Piazza and it's answered there, that benefits other people who have the same question (if you're shy, you can post anonymously).
4. If you've tried #1-3 and feel like your question hasn't been fully addressed, please email your assigned TA or myself. Or attend one of the office hours on Slack.
5. For questions about assignment grading, first ask your TA. If that doesn't resolve the issue, then ask me.
6. For questions relating to course policies or administration, email me directly.

You are allowed to post to the discussion board any non-working code you need help with, but you should post only as much as is necessary for your question. Do not post working code until after the assignment due date. When answering a posted question, please use pseudocode or give hints so the student will have the satisfaction (and learning reinforcement) of figuring out the solution for themselves. When you are willing to help others on the discussion board and take pains to not make anyone feel like they asked a dumb question, you are reinforcing both your technical knowledge and

your people skills, both of which are highly valued not just here, but out in the real world.

Online tutoring is available. The link to the signup form is [here](#).

Technical Assistance

If you experience any errors or problems while in your online course, contact 24-7 Canvas Support through the Help link within Canvas. If you experience computer difficulties, need help downloading a browser or plug-in, or need assistance logging into a course, contact the IS Service Desk for assistance. You can call 541-737-8787 or visit the IS Service Desk online.

Academic Integrity

For this class, it is encouraged for students to discuss course content with each other, even including general discussion of homework assignments and how to fix specific issues. However, each person must develop her or his own individual solutions (except of course in group assignments, where each group must develop its own solutions). In particular, a student may not copy (by any means) another's work (or portions of it) and represent it as her/his own. Plagiarism can result in drastic consequences for both the person who copied and the person who allowed them to copy. The normal penalty is a zero for the assignment and having the incident go on your official record. **If you make your code available to others (for example in a public GitHub repository) and someone else copies it, both parties will be held responsible.**

Students with Disabilities

Accommodations for students with disabilities are determined and approved by Disability Access Services (DAS). If you, as a student, believe you are eligible for accommodations but have not obtained approval please contact DAS immediately at 541-737-4098 or at <http://ds.oregonstate.edu>. DAS notifies students and faculty members of approved academic accommodations and coordinates implementation of those accommodations. While not required, students and faculty members are encouraged to discuss details of the implementation of individual accommodations.

Student Conduct Code

This program strives to prepare students for careers in computer science, which includes preparing students to communicate professionally. Therefore, students in this class are expected to communicate in a professional manner in discussion forums, email messages and all communications for this course. Critiques, disagreements, problems, or other topics of a sensitive nature can be addressed, but should be addressed civilly and professionally. If a student's communications become unprofessional, disruptive, abusive, inflammatory, or if they otherwise obstruct the learning process of the class, the instructor may restrict the student from participating in the electronic forums associated with the class and notify Ecampus and the OSU Office of Student Conduct and Community Standards. Productive learning communities and workplaces depend on civil, professional discourse. It is our hope that this policy strengthens your learning community and prepares you for the professional workplace.

Online Privacy

Posts to Canvas or Piazza discussions or Canvas groups are public messages, and all such posts will be viewable by the entire class or the assigned group members. If you prefer that only the instructor sees your communication, use a private message or email.

Posting of personal contact information is strictly at your own risk.