Fall 2020 CS 161 syllabus

Course: CS 161 – Introduction to Computer Science I

Credits: 4

Instructors (for all sections):

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 Required textbook: None

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. Some extra time may be needed to grade assignment 10, due to its greater complexity.

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. Prerequisites: MTH 112, minimum score of 33 in 'Math Placement Test' or minimum score of 061 in 'Math Placement - ALEKS'. A minimum grade of C is required in MTH 112, which may be taken concurrently.

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.

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.
- Slack is a synchronous discussion forum where the TAs will hold their office hours, and which is also for more casual conversation with fellow students.
- GitHub is a popular tool for hosting version-controlled code repositories.

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. One simple test is provided on Gradescope, for which you get immediate feedback. The remaining tests are "hidden" until the due date has passed.
- You may submit assignments and quizzes up to 48 hours late for half-credit, **with the exception of assignment 10 and the end of course reflection**. If you have extenuating circumstances, please contact me about them as early as possible.
- 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 techniques for assignments that haven't been covered in the **exploration pages** (the optional readings don't count), otherwise you may lose points. The reason for this is so you don't 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.
- Grades will not be "curved".
- 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 small snippets of non-working code, as discussed in the section on Academic Integrity below. That also applies to answering other students' questions - 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

The Code of Student Conduct prohibits Academic Misconduct and defines it as:
Any action that misrepresents a student or group's work, knowledge, or achievement, provides a potential or actual inequitable advantage, or compromises the integrity of the educational process.

To support understanding of what can be included in this definition, the Code further classifies and describes examples of Academic Misconduct, including cheating, plagiarism, assisting and others. See the [Code of Student Conduct](#) for details.

You are expected to do your own work and demonstrate academic integrity in every aspect of this course. Familiarize yourself with the standards set forth in the OSU Code of Student Conduct Section 4.2. You must only access sources and resources authorized by the instructor. You may not show your work to any other current or future students without the instructor's authorization. Violations of these expectations or the Code of Student Conduct will be reported to the Office of Student Conduct and Community Standards. If there is any question about whether an act constitutes academic misconduct, it is your responsibility to seek clarification and approval from the instructor prior to acting.

Academic Integrity DOs and DON'Ts
- You are encouraged to discuss course content with each other, even including general discussion of homework assignments and how to fix specific issues.
- You may post small snippets of non-working assignment code to Piazza or the official course Slack. If you have trouble narrowing the problem down to a small snippet, just describe the problem as well as you can and/or ask your TA for help.
- You may ask conceptual questions related to assignments on Piazza or the official course Slack.
- You may post code for the exploration exercises on Piazza or the official course Slack.
- You may **not** post any quiz questions or answers in any form.
- You may **not** make your code publicly accessible. For example, any git repo you post assignment code on must be **private**. Later courses will have assignments specifically

designated as portfolio assignments, which you will be able to post in a public repository.

- You may share and compare your assignment code with other students on Piazza or the official course Slack **starting the Sunday after the assignment was due**. Keep in mind that there's not just one correct way to write a program - there's almost always a variety of correct approaches. As you compare with others' code, try to notice what seem to be advantages or disadvantages of a particular approach, and don't be afraid to ask questions about why someone made a certain design decision.

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.