CMU 15-112: Syllabus
Fall 2021

We're Ready	15-112 will be taught in person this semester. This is a transitional semester for all of CMU, and most of you (and most of us) have been remote for well over a year. Bear in mind the following: • We are fully committed to giving you a world-class learning experience, worthy of CMU's proud tradition, and worthy of your considerable time and financial investment. • The pandemic is ongoing, and it is entirely possible that we will need to adapt the course in response to new developments, including a temporary or semester-long return to remote learning. We hope that this does not become necessary, but we are entirely confident in our ability to adapt to any situational changes, and we are confident in your resilience and creativity. • Regardless of modality, our response to all challenges is to rely on **people** rather than technology. We are all in this together, and we will thrive as a supportive learning community. You are never alone, not even when working on "solo" assignments. You always have many, many people who are here for you. • Please follow all university policies regarding COVID-19. Our ability to teach in-person depends on it. And, if you are feeling ill or have been in close contact with someone with COVID-19, DO NOT ATTEND any in-person course events. Nobody wants you to take that risk, especially us. Contact us and we will do our best to provide you the support you need. • These times also call for flexibility on everyone's part. We ask you to please be creative in how you adapt to these challenges. We assure you that we will be as well. We are fully committed to your health, well-being, and happiness. We stand ready to change any course policies should we feel that you would benefit from those changes.they are necessary to ensure the safety of students, staff, faculty, and family.
Time Zone	Unless otherwise stated, all times in all course-related documents and correspondence will be in Pittsburgh time (ET). Note that Autolab in particular may show times in your local time, but our course website uses Pittsburgh-time.
Previous Versions	Previous versions of 15-112/15-110/15-100: S21 (http://www.kosbie.net/cmu/spring-21/15-112/), F20 (http://www.kosbie.net/cmu/fall-20/15-112/), S20 (http://www.kosbie.net/cmu/spring-20/15-112/), F19 (http://www.kosbie.net/cmu/fall-19/15-112/), S19 (http://www.krivers.net/15112-s19/), F18 (http://www.krivers.net/15112-f18/), S18 (http://www.krivers.net/15112-s18/), F17 (http://www.krivers.net/15112-f17/), S17 (http://www.kosbie.net/cmu/spring-17/15-112/index-s17.html), F16 (http://www.kosbie.net/cmu/fall-16/15-112/), S16 (http://www.kosbie.net/cmu/spring-16/15-112/), F15 (http://www.kosbie.net/cmu/fall-15/15-112/), S15 (http://www.kosbie.net/cmu/spring-15/15-112/), F14 (http://www.kosbie.net/cmu/fall-14/15-112/), S14 (http://www.kosbie.net/cmu/spring-14/15-112/), F13 (http://www.kosbie.net/cmu/fall-13/15-112/), S13 (http://www.kosbie.net/cmu/spring-13/15-112/), F12 (http://www.kosbie.net/cmu/fall-12/15-112/), S12 (http://www.kosbie.net/cmu/spring-12/15-112/), F11 (http://www.kosbie.net/cmu/fall-11/15-112/), S11 (http://www.kosbie.net/cmu/spring-11/15-110/), F10 (http://www.kosbie.net/cmu/fall-10/15-110/), S10 (http://www.kosbie.net/cmu/spring-10/15-110/), F09 (http://www.kosbie.net/cmu/fall-09/15-110/), S09 (http://www.kosbie.net/cmu/spring-09/15-100/), F08 (http://www.kosbie.net/cmu/fall-08/15-100/), S08 (http://www.kosbie.net/cmu/spring-08/15-100/), F07 (http://www.kosbie.net/cmu/fall-07/15-100/) Previous Summers: N21 (http://www.cs.cmu.edu/~mdtaylor/n21/), M20 (https://www.cs.cmu.edu/~112-m20/), N19 (https://www.cs.cmu.edu/~112-n19/), M19 (https://angogate.bitbucket.io/112/), N18 (https://www.cs.cmu.edu/~112n18/), M18 (https://www.edwarddryer.com/cmu/archive/112-m18), M12 (http://www.kosbie.net/cmu/summer-12/15-112/), APEA-09 (http://www.kosbie.net/cmu/summer-09/15-100/), APEA-08 (http://www.kosbie.net/cmu/summer-08/15-100/)

Description	A technical introduction to the fundamentals of programming with an emphasis on producing clear, robust, and reasonably efficient code using top-down design, informal analysis, and effective testing and debugging. Starting from first principles, we will cover a large subset of the Python programming language, including its standard libraries and programming paradigms. We will also target numerous deployment scenarios, including standalone programs, shell scripts, and web-based applications. This course assumes no prior programming experience. Even so, it is a fast-paced and rigorous preparation for 15-122. Students seeking a more gentle introduction to computer science should consider first taking 15-110. NOTE: students must achieve a C or better in order to use this course to satisfy the pre-requisite for any subsequent Computer Science course.
Learning Objectives	At the end of the course, students should be able to: • Write clear, robust, and efficient code in Python using: ◦ sequential, conditional, and loop statements ◦ strings, lists, tuples, sets, and dictionaries ◦ objects and classes ◦ recursive approaches ◦ graphics and interaction • Develop programs to effectively solve medium-sized tasks by: ◦ employing modular, top-down design in program construction ◦ demonstrating an effective programming style based on established standards, practices, and guidelines ◦ proactively creating and writing test cases to test and debug code ◦ applying computational problem-solving skills to new problems, especially in the student's home academic discipline ◦ explaining and analyzing the efficiency of algorithms, particularly by predicting the Big-O running time of small pieces of code • Design and write a substantial (500-1500 line) program in Python with minimal guidance
Topic List and Schedule	See the topic list and schedule here (schedule.html) (includes schedule, notes, video mini-lectures, homeworks, quizzes, and tests).

Office Hours and More

Note: Some office hours may be virtual this semester.

- Check Piazza regularly for updates on various events. You can find the latest link for virtual events in the 112 Zoom link spreadsheet (TBD).

Instructor Open Office Hours:

- TBD

Instructor Private Meetings:

David and Mike will also provide several hours per week each for short private meetings. These will generally be 15-20 minutes long, though longer meetings may be arranged as needed at faculty discretion. You may sign up for up to one private meeting per week as space allows. Sign-up links will be in the 112 Zoom links spreadsheet (TBD). The sign-up slots will specify if the meeting is in-person or remote.

TA Office Hours:

Mon	Tue	Wed	Thu	Fri	Sat	Sun
TBD	TBD	TBD	TBD	TBD, TBD, TBD	TBD, TBD	TBD, TBD

Piazza Virtual Office Hours:

- Piazza is monitored by TA's daily at all (reasonable) hours of the day.
- When posting on Piazza, remember to **make your post private!** Public posts by students are not allowed.

Large-Group Sessions:

- You may not submit the hw after you attend the hw solution session.
- Schedule:

Wed TBD	Spicy Recitation
Thu TBD	Optional / Advanced Lecture
Thu TBD	Quiz Solutions
Sat TBD	Hw Solutions
Sun TBD	Quiz Prep

Schedule of Classes:

Important notes:

- **Use Autolab's Roster:** Check Autolab (and not SIO) to confirm your assigned lecture and recitation times.
- **Lecture Attendance:** You **must** attend your **assigned** lecture **live.** If you cannot do so, contact the course faculty and we will consider a one-time request to attend a different lecture on the same day or perhaps to view a recording of a lecture. These require faculty or lead-TA permission in email prior to your assigned lecture.
- **Recitation Attendance:** You must attend your **assigned** recitation **live.** If you must miss a recitation, you should email your recitation TA's beforehand to inform them of the situation, and you must watch the recording (if we record a recitation for that day.) **Because of space constraints and COVID-19 protocols, you MAY NOT attend a different recitation unless instructed to do so by the course faculty.**
- **Spicy Recitation:** Each Wednesday TBD, we will provide one "spicy" recitation. The spicy recitation will cover more advanced topics, and is meant to provide more of a challenge to students who are already very comfortable with the core material. The spicy recitation is recorded each week (but watching the recording will not count as attendance). You are required to attend either your assigned Wednesday recitation or the spicy recitation. However, room capacity is limited and you may be unable to attend if the room is full, so we encourage you to attend your normal recitation as well, at least for a few weeks.

Lectures:

	Days	Lecturers	Time
Lecture 1	Tu/Th	David Kosbie (koz)	10:40am - 12:00pm
Lecture 2	Tu/Th	Michael Taylor (mdtaylor)	2:20pm - 3:40pm
Lecture 3	Tu/Th	Prithvi Okade (pokade) and Elena Swecker (eswecker)	10:00pm - 11:20pm

Recitations:

	Days	TA's	Time
Section X0	W/F	Deniz (mbirlikc) and Winston (wzha)	5:00am - 5:50am
Section Y0	W/F	Alan (alanhsu) and Crystal (crystal3)	8:00am - 8:50am
Section A0	W/F	Joe (jritze), Arjan (abedi), and Janika (janikao)	9:10am - 10:00am
Section A1	W/F	Leo (lnicolus) and Karen (karenli)	9:10am - 10:00am
Section B0	W/F	Anita (anitama), Alexis (aaxon), and Joyce (btruong)	10:30am - 11:20am
Section B1	W/F	Elisa (ezm), Advait (anene), and Casper (casperw)	10:30am - 11:20am
Section B2	W/F	Kelly (kwoicik), Saumya (ssbhanda), and Sidney (sidneyw)	10:30am - 11:20am
Section C0	W/F	Brittney (bsidwell) and Tate (tmauzy)	11:40am-12:30pm
Section C1	W/F	Andrew (andrewh1) and Eileen (emao1)	11:40am-12:30pm
Section C2	W/F	Kian (knassre) and Brent (brenth)	11:40am-12:30pm
Section D0	W/F	Grace K. (haeunk), Sai (ssagiraj), and Adhvik (akanagal)	12:50pm-1:40pm
Section D1	W/F	Lauren (lsands), Jason (jstentz), and Kruthi (kthangal)	12:50pm-1:40pm
Section E0	W/F	Grace C. (gcui), Allison (ahunter2), and Nathan (nmarquez)	2:10pm - 3:00pm
Section E1	W/F	Jake (jzych) and David (kachunc)	2:10pm - 3:00pm
Section F0	W/F	Elena H. (eharllee) and Nancy (nancykua)	3:20pm - 4:10pm
Section F1	W/F	Mihika (mbairath) and Vivian (vbeaudoi)	3:20pm - 4:10pm
Section G0	W/F	Kaitlynn (kecooper) and Sibhy (sibhyr)	5:50pm - 6:40pm
Section G1	W/F	Patrick (pbhuang) and Helena (hfy)	5:50pm - 6:40pm
Section H0	W/F	Asad (asadalis) and Aaron (aaronto)	7:00pm - 7:50pm
Section Z0	W/F	Terry (tyf)	8:00pm - 8:50pm

Course Resources:

15-112 can be an intense course, but it becomes **much** more manageable if you use the course resources well. These resources include:

- **Course Notes**: The course notes (on the schedule page) are full of useful information and examples that can help you approach the assignments! When you don't understand a concept, try reading the notes and watching the associated videos first.

- **TA Office Hours**: Office hours let you ask questions to TA's directly, and can help you understand concepts and debug programs that you're struggling with alone. During TA OH, **use the OH Queue (https://cmu.ohqueue.com/) to sign up** for help! OH Queue is used only for TA office hours. **You must create a zoom call and paste the link into the comment field** so that TA's can find you! When you join the queue, please prepare to ask your question as efficiently as possible. During busy TA OH, to provide the fairest help to the most students, TA's can only spend **five minutes** with each student.

- **Instructor Open Office Hours**: During these open OH, you can ask questions about anything, or just listen in and maybe pick up some neat stories. These are **open** OH, so they are **not private.** Thus, you should not ask/discuss/share anything which should be private (like hw answers), or anything which you would not want others to hear. For specific homework and debugging help, pleae attend your TA's study sessions and/or use Piazza and OH instead so that we can include everyone in the discussion. We expect these will be fun and collaborative, and will help us all get to know each other! As with all course-related zoom meetings, you can find the link to these events in the 112 Zoom links spreadsheet (https://docs.google.com/spreadsheets/d/1QBqjdSzrQlLMFSczoXjeP8k5AgbGGXh1HSPxJwLp5tI/edit?usp=sharing).

- **Instructor Private Meetings**: David and Mike will also provide 3+ hours per week each for short private meetings. These are for relatively quick questions or discussions. At faculty discretion, we may schedule a longer follow-on private meeting as appropriate. slot (usually about 10-20 minutes) per week as space allows. Unless we have already met privately in the last week, you do not need explicit permission to sign up! Sign-up links will be in the 112 Forms page (forms.html). When it is time for your meeting, look for the Private Meetings link on that same page. You will go to a waiting room, and we'll admit you as soon as we can. Please be punctual and do not join if you have not reserved that time. So that we can spread our time as fairly as possible, please keep this in mind:
    - No more than 1 private meeting per student in any 2-week window (faculty may arrange more time if needed).
    - We are always available by email -- which may get you a faster response without consuming limited meeting time.
    - Also, we prefer most matters to be discussed in our general open office hours. Private meetings are specifically and only for issues that are not appropriate for that open OH format nor for email.
    - These meetings are not for help on the currently-assigned homework (go to TA OH for that).
    - Do not miss these meetings (or you may lose access to them).
    - Also, if you show up late, the meeting still ends on time.

- **Piazza**: Piazza can be used to ask quick questions and receive quick responses without attending live office hours. Questions on Piazza should be specific and include all needed information (so if your code has an error you don't understand, include the **relevant** part of the code and the error message). We do not allow public posts from students on Piazza; please only post private questions, and please address your posts to "Instructors" so that any TA can help you. (If you have a question just for David or Mike, please use email instead.)

- **Large-Group Sessions**: TA's run large-group sessions to provide more structured review for quizzes and lecture material. Many will be online due to limited campus space, but some will be in-person. Any in-person event MUST abide by room capacity limits, so get there early to avoid being turned away. Some are offered weekly at a regular time (see schedule above), while others may be one-time events. These may include:
    - Optional/Advanced Lectures
    - HW Solution Sessions
    - Quiz Reviews

  Note: **You may not turn in an assignment after attending/watching any part of its solution session.** Doing so will be considered an academic integrity violation.

- **Recitation TA Study Sessions**: When possible, your recitation TA's may offer extra study sessions, providing extra support for students as appropriate.

	• **Tutoring**: Student Academic Success Center (formerly known as Academic Development) offers tutoring for 15-112. This is a good resource for students who want one-on-one tutoring outside of the course.
External Resources:	**Required Textbook: None!** But you may find these extra resources helpful: • Python Shells (in the browser): repl.it (http://repl.it/languages/Python3), codingground (https://www.tutorialspoint.com/execute_python3_online.php), brython (https://brython.info/tests/editor.html?lang=en), pythontutor.com (http://pythontutor.com/) (step-by-step tracing with visualization) • Python Books: How to Think Like a Computer Scientist (Interactive Edition) (https://runestone.academy/runestone/books/published/thinkcspy/index.html), Python for Everybody (https://books.trinket.io/pfe/) • Python Courses: Code Academy (http://www.codecademy.com/), Khan Academy (Javascript) (https://www.khanacademy.org/computing/cs/programming), Google's Python Class (https://developers.google.com/edu/python/?csw=1) • Python Exercises: Project Euler (http://projecteuler.net/), codingbat (http://codingbat.com/), pyschools (http://www.pyschools.com/), progzoo (http://progzoo.net/wiki/Python:Tutorials), programmingpraxis.com (http://programmingpraxis.com/), The Python Challenge (http://www.pythonchallenge.com/about.php)
Required Software:	Every required software package we use is available for free on the web. This includes: • **Python version 3.x (3.7 or later)**, which can be freely downloaded from python.org (http://www.python.org/). • We will also use the 15-112 quiz framework, built using Brython (http://www.brython.info/), which is a version of Python that runs in web browsers. • We may also use one or more free IDE's (code editors) and other free software packages.
Course Requirements:	**Participation** with **earnest effort** in this course is **required** and consists of the following activities: • Attending and participating in all the lectures, recitations, and required events. • Carefully reading the course notes and other assigned readings. • Thoughtfully completing the homework assignments, and the term project with earnest effort. • Taking all the required quizzes and exams. **Attendance** is **required** (if not always strictly recorded). You will be responsible for all materials presented in lectures and recitations. Note that missed quizzes and exams may not be made up in general (though certain exceptions are permitted -- see the relevant sections below). **Responsiveness** is **required**. You need to monitor your andrew email and respond to course-related emails promptly, preferably the same day and in any case within two days. Also, you must **read all Piazza posts carefully.** You are responsible for knowing this information, including any changes or additions to policies, deadlines, etc. **Important Note:** failure to satisfy these course requirements will result in deductions in your semester grade, up to and including course failure, at the sole discretion of the course faculty.

Grading:

Course Component	Weight	Notes
Quizzes (about 8)	10%	Lowest 2 quiz grades are **half-weighted**.
Solo Homeworks (about 9)	30%	Lowest 2 homework grades are **half-weighted**.
Midterms (2)	20%	Lowest 1 midterm grade is **half-weighted**.
Term Project (1)	20%	
Final Exam (1)	20%	Optional, defaults to **weighted midterm average**

Midsemester and Semester grades will be assigned using a standard scale, as will each homework, quiz, midterm, term project, and final, as such:

A: 90 - 100
B: 80 - 89
C: 70 - 79
D: 60 - 69
R: 0 - 59

Note that graduate students will be assigned +'s and -'s according to the following scale (generalized across letter grades):

B-: [80-83)
B: [83-87)
B+: [87-90)

The course instructors may choose to change the scales at their discretion. You are guaranteed that your letter grade will never be lowered as a result of changing scales.

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Semester Grade Cap Policy

In all cases, your semester grade is capped at 15 points above the highest score you receive on the course's proctored events -- that is, on your semester quiz average, on midterm1, midterm2, or on the final exam. For example, if your raw semester average is 83, but your highest proctored score is a 57, then your semester score is capped at 72 and you would receive a C as your semester grade. Note: The grade cap policy very rarely impacts any students, but exists to ensure baseline fluency.

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Alternate Minimum Grading (AMG) Policy

This AMG policy is available to everybody, but is designed specifically for those students who struggle in the first part of the course and then through sustained hard work and dedication manage to elevate their performance in the latter part of the course to a level that merits passing with a C, even if their Standard Grade might be lower than that.

In addition to Standard Grading as described above, we will separately compute your grade using an Alternate Minimum Grading (AMG). Students do not sign up for AMG. Every student will be considered both for Standard Grading and AMG, and their semester grade will be the higher of the two (where the highest grade via AMG is a C).

Your AMG grade is the smaller of your final exam grade and your tp3 (term project) grade, capped at 70. Or, in Python, like so:

```
amgGrade = min(final, tp3, 70)
```

AMG eligibility depends on demonstrating **sustained effort.** To qualify for AMG you **must meet the course requirements** in the previous section. Also:

- You cannot miss multiple lectures/recitations
- You cannot miss multiple assignments or quizzes
- You cannot violate the Academic Integrity Policy or any collaboration guidelines

Assigned Work:	**Solo homeworks:** Solo homeworks are generally due Saturday at 8pm Pittsburgh-time. **Homeworks are entirely solo.** See the "Academic Integrity" section below for more details. That said, you always have access to extensive help provided by the TA's and course faculty. (Note: we will not grade you on style until we have covered the style guide in class. We do not normally grade style on quiz and exam problems, though you should practice good style anyway, just in case.) It is absolutely critical that you **read all instructions for every assignment!** While similar, these instructions will change from week to week. If you lose points for not following instructions, you cannot get them back by telling us you didn't see them. We'll point you right back here. "Bonus" or "Extra Credit" questions are meant to be very challenging. These questions are typically worth very few points, and should be attempted only for the sake of challenging yourself further. Programming assignments will be graded based on style (modularity, effective use of data abstraction, readability, commenting, etc.) and functionality (correctness and efficiency of the program on all possible test inputs). Your code should be properly annotated with comments that are well-placed, concise, and informative. Your assignments will be graded by TA's, by automated graders, and at times by the course faculty. **Term Project:** The Term Project will be the last major course activity of the semester. You will design and build a program of your choosing with the guidance of a mentor TA. More information can be found in the Term Project Assignment writeup.
Assessments:	**Quizzes:** Quizzes will be given most weeks, generally in lecture on Tuesday. Quizzes generally focus on material from the previous week and the previous homework, though any prior material may appear as well. **Re-taking quizzes:** We are going to experiment with a re-take option. If you do not receive at least a 70 on a quiz, you may complete a re-take quiz at the designated re-take proctoring session that same week. The questions will be different, but the quiz will cover the same broad topics. Your re-take score will replace your old quiz score (whether or not it is higher or lower) and it will be capped at a 70. If you did poorly on the original quiz and put in the effort to practice the concepts you missed, re-taking can yield a higher grade, and you will also have a stronger foundation for the newer material. However, since the score is capped at 70, and it's probably not worth the risk if your score is between 65 and 70 unless you are very confident in the material (also, your time may be better spent staying current with the new material). Note: If you miss a quiz, you may not do its re-take (barring excused absences of course). **Midterm Tests:** There will be 2 midterm exams, weighted as indicated above, given in class as noted in the course schedule. **Final Exam:** There will be a final exam, weighted as indicated above, during the university-assigned final exam period at the end of the semester. It will cover all material present in 112 during this semester.

Online Testing:	Quizzes and exams (and possibly other activities) will be computer-proctored and generally administered in-lecture. Assessments will include specific procedures for you to follow. Note: • Failure to follow proctoring policy may lead to an automatic zero and/or an academic integrity violation. • Do not attempt to access any assessments until instructed, or outside your assigned proctored environment. • If you encounter any technical difficulties, or if your testing environment freezes, notify your proctor immediately. It is easy for us to distinguish true accidents, and we will respond fairly to those, so do not panic. • You will need a laptop capable of running on battery for at least one hour. If you do not have access to one of these, or if your laptop battery does not hold a 1-hour charge, contact the course faculty before the quiz or exam. There are no accessible outlets in our lecture halls, unfortunately. If your laptop runs out of battery in the middle of a test, we will in most cases grade the incomplete quiz normally. The testing protocol is subject to change. Any instructions given by the faculty or the assessment itself will take precedence.
Academic Integrity:	**Philosophy:** We begin by choosing to trust each of you individually. Do not be one of the few who loses that trust. If you cheat, expect to be caught, and expect significant consequences. Use common sense and understand these rules. These rules are meant to convey the **spirit** of our academic integrity expectations. For example, when we say "do not copy" we always mean visually, verbally, electronically, or in any other way, even if you copy and modify it. We additionally expect you to uphold CMU's more general academic integrity standards. Attempting to exploit technicalities simply reduces our assurance that you fully learned from the mistake. If you are unsure of something, you only need to ask us beforehand. If you do this and strive to understand the intent of this policy and exercise common sense, you have nothing to worry about. Generally, examples of academic integrity violations include but are not limited to: • Claiming or submitting as your own any work or code you did not fully author, explicitly or implicitly, no matter how small. • Missing or inaccurate citations • Discussing any part of assignments or assessments with anyone else (besides current 112 TA's and course faculty), no matter how briefly or casually, in-person or via Discord/WeChat/Zoom etc unless the assignment explicitly allows it. • Looking at any part of anyone else's solution(s) to an assignment or assessment, or showing anyone else any part of your solution(s) no matter how briefly or casually. • Asking or answering any questions about assignments or assessments anywhere except through official 112 resources, or sharing/viewing any part of assignments, assessments, or solutions in-person or online in any way. In particular, this disallows stackoverflow, chegg, and all other such sites. • Attempting to 'hack', decompile, disrupt, or misuse the autograder, testing environment, or course tools. **Homework:** Unless otherwise noted, all homework exercises are **solo**, meaning that **you must not collaborate with anyone in any way**. Note that 'anyone' includes but is not limited to other past, present, or future students, friends, parents, siblings, etc. Remember: you always have access to extensive help provided by the TA's and course faculty. **We strongly encourage you to use this support!** **Term Project:** The term project writeup will allow for certain kinds of productive collaboration. Still, you will only be graded on your truly original contributions. Missing, inaccurate, or misleading citations on any assignment or deliverable may result in an academic integrity violation, regardless of intent. **Assessments (Quizzes and Exams):** Examples of cheating on assessments (Quizzes and Exams) include but are not limited to: • Referring to any external resources (people, electronics, websites, notes, books, etc) while completing the assessment.

- Accessing or copying any part of an answer from another student's work, even if it is very small.
- Attempting to access any unreleased assessment outside of your assigned testing time, or outside of a secured testing environment, even if you have already taken it.
- Providing or receiving links/passwords/codes to quizzes, checks, exams, or other assessments to anyone else.
- Saving or copying any assessment materials so they are available outside of the online quiz/midterm/exam environment.
- Discussing any part of the assessment with anyone who hasn't taken it (or a very similar one) until we have released it publicly (including with non-112 students)
    - For example, taking a quiz and sending a message as simple as "I wish I hadn't spent so much time studying nested loops" (or some other topic) before the quiz is released
- Violating proctoring policies, like continuing to work on the assessment for any duration after the proctors announce the stop time, or falsifying/fabricating a tech fail.

Retaking Course / Reusing Prior Material:
If you are repeating 112, your prior work in this course is treated just as anyone else's work. Consulting or copying your prior homework answers or term project solutions will only hurt your learning, and will be treated as a cheating violation.

Plagiarism Detector:
Programs are naturally structured, which makes them very easy to compare. Here (http://www.kosbie.net/cmu/spring-13/15-112/automated-plagiarism-detector-demo.mp4) is a short video demonstrating one of several automated detection methods we use on every assignment. In short: **if you copy (or even reference code), including work from prior semesters, we will be able to tell.**

Penalties:
Course penalties are decided by the course faculty, and vary based on the severity of the offense. Offenses can be severe even if the assignment/assessment is worth very few points (for example, cheating during a quiz). Possible penalties include:

- Receiving a 0 or -100 on the assignment/assessment, which cannot be half-weighted
- Receiving a semester-average deduction, often a full-letter-grade (Most common)
- Automatically failing the course

Penalties may also be accompanied by a report to the Dean of Student Affairs and/or the Office of Community Standards and Integrity. This can lead to additional university-level penalties, such as being suspended or expelled. University policy states that you may not drop the course if you have an academic integrity violation (except in rare/unusual cases where you have faculty approval). If you are in the precollege program, committing an academic integrity violation nullifies the program's grade forgiveness policy.

Honesty:
To end this section on a more positive note, you should know that we put a high premium on honesty. If you get into an Academic Integrity situation, then the sooner and more completely you tell the entire truth, by far the better it is for you and for everyone else involved. The bottom line: If you regret a lapse in judgment, it is always better to let us know right away, to come clean and be honest and truthful. You will feel better about it, as will we, and it will probably result in a better outcome for you as well.

Extensions:	Here is this semester's Extension Request Form (TBD). That said, in general, due to the scale of the class, we cannot give individual extensions on assignments or assessments. However, there are a few exceptions: • **Medical Emergencies:** if you are on campus and you are feeling sick, **contact Student Health Services!** Students who have prolonged absences due to medical treatment may obtain extensions from the instructors at their discretion, or by request from Student Health Services, any medical professional, or an advisor, housefellow, etc. While we do not need medical specifics, please provide some form of documentation (such as a receipt from Student Health Services) that indicates you are receiving treatment. **Additionally, we beseech you to follow all University guidelines related to COVID-19, both for yourself and for all of us. If you believe you may be carrying anything transmissible, please do not attend any in-person events, and contact us for support in the course.** • **Family/Personal Emergencies:** if you are having a family or personal emergency (such as a death in the family or a mental health crisis), **reach out to your academic advisor or housefellow immediately!** They will help support you in your time of need, and will also reach out to all of your instructors (including 15-112 instructors) to request extensions for you. • **University-Related Absences:** if you are attending a university-approved or clearly university-related event off-campus (such as a multi-day athletic/academic trip organized by the university), you may request an extension for the duration of the trip. Note that we will consider most job interview trips to fall in this category. If possible, you must provide confirmation of your attendance, usually from a faculty or staff organizer of the event. • **One-Time Multi-Day University-Related Event:** if you are deeply involved in an event involving some university-related club or organization that you are in, where it will take nearly all of your time over multiple days, and this is a one-time deal for the semester, then we will consider granting an extension on that week's homework. Please note that extensions must be requested **before** the assignment/assessment deadline. Additionally: if a religious day you observe conflicts with an assignment date or event, let the course instructors know **in advance**; we may be able to provide extensions or move assignment dates in some cases (though in general we urge you to start the assignment early instead).
Late Policy:	In general, all solo homework is due at the assigned date and time. Without an approved extension as described above, any late submissions to Autolab will receive 0 points. However, we understand that life can sometimes get in the way. Therefore, we provide **2 Grace Days** for homework assignments. These can be used to submit solo homeworks up to 24 hours late with no penalty. You may only use one grace day per homework. You do not submit a request to use a Grace Day -- you simply submit your homework after the posted deadline, and autolab automatically counts that as a Grace Day if one is available for you. We strongly urge you not to use these grace days immediately; try to save them for unforeseen events. Note that grace days may only be used on solo homeworks, and may not be used on quizzes, the term project, or exams, or anything else. Important note: if you are out of grace days, then any late submissions to Autolab will receive 0 points. Additionally, **no late/make-up quizzes or exams will be administered**, except in the cases covered under the Extensions policy. Approved missed quizzes will be excused; approved missed exams will be taken at the earliest possible date as approved by course faculty.
Regrade Requests:	We occasionally make mistakes while grading (we're only human!). If you believe that you found a mistake which you would like us to correct, please submit a regrade request using this form (TBD). Regrades must be requested within two weeks of the time when the contested grade was released. Note: regrade requests will result in the **entire problem** being regraded, not just the possibly-incorrectly-graded part.
Formatting Errors:	Misformatted homework in general cannot be graded by our autograder, and as such may receive penalties, which can range from -5% to not being accepted at all. Therefore, be sure to submit your homework early (you can submit repeatedly, we only grade the last submission) to be sure you do not have obvious formatting errors. It is also your responsibility to check that you successfully submitted the file you intended. You can easily check your Autolab grade and feedback a few seconds after submitting. (Note: Any manually-graded problems will not have a score immediately.)

Recording:	Students may not record audio or video of lectures or recitations or any other faculty-led or TA-led course events (online or in-person) without explicit permission in writing from the instructor or the TA in the instructor's absence. Exceptions will be granted in accordance with university guidelines for accessibility concerns, but even then such recordings may not be shared publicly or privately. We plan to record at least one lecture and recitation along with some large group events, and these will be available to currently-enrolled students until the end of the semester. **Camera policy:** We request that you to keep your camera on during all zoom events, as this will provide the best learning experience for you and your classmates. We suggest you use a virtual background if you are uncomfortable with your environment being visible to others. You may alternatively use a face-tracking virtual avatar if you wish, like those available through loom.ai etc. That being said, if you have accessibility or equity concerns that are not solved by either of these solutions, please let us know. For 1-on-1 meetings, assessment proctoring, or group events of 5 or fewer people, we do require your camera to be on unless you have approval from the attending TA or the course faculty.
Accomm-odations:	We gladly accommodate students with disability-related needs (as approved by the Office of Disability Resources (ODR), as explained here (https://www.cmu.edu/disability-resources/students/index.html)). If you are eligible for accommodations, please ensure that the Office of Disability Resources has sent us your **Summary of Accommodations Memorandum** within the first week or two of class. We will contact you within a few days of receiving this form with any relevant instructions for using your accommodations in 15-112. **Please note: At the guidance of the University, we can only provide disability-related accommodations which have been explicitly approved by ODR** and are on the most recent Summary of Accommodations Memorandum we have received. If you require accommodations that have not been approved by ODR, you should contact them as soon as possible. Also according to University guidance, we cannot retroactively apply your accommodations if we receive them from ODR later in the semester (for example, a modification on an assignment due before we received official approval of your accommodations). **Extended Time:** students who receive Office of Disability Resources (ODR) approved extended-time on assessments will be proctored either by ODR's testing center or the course staff, depending on ODR's capacity. The course faculty will email you with instructions for scheduling your assessments during Week 1, or upon receipt of your memorandum. In order to meet the logistical challenges of additional proctoring, we ask that you schedule extra-time assessments at least five days in advance. Extra-time assessments must take place on the same day as the in-class assessment unless otherwise approved by the course faculty. **Important:** to use extra time, you must sign up for a proctoring time outside of lecture with ODR (or you must attend the extra-time quiz or exam time if proctored by the course staff), and not the normal-duration quiz or exam. You do have the option of attending the normal-duration quiz or exam, but then you will have to complete it in the assigned time (without extra-time). If you plan to take an extended-time quiz, you do not need to be present in lecture until the standard-time quiz is over (usually in the first 20-25 minutes) We are here to help. If you have any questions or concerns relating to 15-112 and how we can best accommodate you during this unusual semester, please contact the course faculty and we will work together for your success.
Auditing:	We have found that students who audit 15-112 do not tend to succeed, as they generally cannot dedicate the requisite time and focused discipline to the course. **We must also strictly limit in-person events to ensure that we do not violate room capacities.** Therefore, **auditing will only be allowed in exceptional circumstances**, and must be approved by the course instructors first. Rather than auditing, in some cases you may take the course as Pass/Fail instead. This still is not ideal basically for the same reasons, but history suggests that it is a better option in some cases (say, for graduate students who want to learn how to program but already have an over-full load of graduate courses). Note: you may not take the course Pass/Fail if you plan to use 15-112 as a prereq.
Waitlist:	If you are on the waitlist, we hope to get you into the class, but because of room restrictions, you may not attend in-person events without faculty approval, or once you are officially off the waitlist. (Note: If you are in a "do not meet" section, you actually **will** meet, and you are registered in the course, but for arcane university software reasons, we'll have to tell you when and where your recitation is through Piazza.

Diversity and Inclusion:	It is our intent that students from all diverse backgrounds and perspectives be well-served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength and benefit. It is our intent to present materials and activities that are respectful of diversity: gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture. Whether in education or industry, inclusive representation creates richer experiences and equips us to solve new and exciting challenges. As we begin the semester, we want you to know: • We are always eager for new ideas and constructive feedback on how to improve accessibility and inclusion. • If you would like to talk to someone about your unique experiences in the course, at CMU, or elsewhere, we are eager to listen. • We love helping students find new opportunities using their 112 skills. If you need help making connections or showcasing your abilities, we'll do our best to help! (This is an invitation for everyone, but especially our underrepresented or disadvantaged students.) • If you know of an event or group that is of particular interest to 112 students, especially those which empower our underrepresented or disadvantaged populations, (including but of course not limited to BIPOC, Latinx, LGBTQIA+, and women in technology/higher education) we are eager to promote these through Piazza. • If you are looking for events or groups to connect with socially or professionally, please talk to our TAs and faculty so that we can help! • CMU is a community of brilliant people from all over the world, and it's easy to feel intimidated or like you don't belong. To varying degrees, we all struggle with these feelings. If you find yourself questioning whether you deserve to be at CMU or in this class, we urge you to come talk to us, and we'll do everything we can to help you overcome those doubts. Lastly, we call on each of you to join us in our commitment to a more welcoming and equitable community. Always seek awareness of your own unconscious biases, and also remember that certain things like neurodiversity, religion, gender identity, and socioeconomic status and are not always immediately apparent. Support your fellow students academically and socially. And if you are eager to personally provide an even better experience for future 112 students, consider applying to be a TA for next semester!
Well-being & Happiness:	We care very much about your well-being and happiness. Yes, CMU students (and faculty) work hard, sometimes very hard. But we must keep our balance and always attend to our well-being and happiness. That comes first, academics follow. **Achieving a better grade is almost never a matter of putting in more time!** So be sure to get enough sleep, eat right, exercise regularly, and attend to your well-being and happiness. Here (http://www.kosbie.net/cmu/talks/2013-cmu-odyssey-happiness.html) is a list of ideas that might help. Also, please know that we do care about you and take your well-being seriously. We want to help you learn while minimizing stress. Meeting the learning goals of 15-112 necessitates significant effort and a fast pace, but do not fall in the trap of working endlessly, as this will only reduce your efficiency (and more importantly, your happiness and well-being). It is not necessary, expected, or something to be proud of. We can help you improve your efficiency and work less, not more. We also seek to minimize the workload as much as is possible, while still meeting the learning goals of the course. Finally, if you are feeling overly stressed, or anxious, or unhappy about your performance or your general experience in this course: **please come talk to us**. We will listen. We are here for you and we will try to help. Addendum: Here is a great summary of many CMU Student Support Services (https://www.cmu.edu/student-affairs/resources/index.html#cmucares).