

CSC 110: Computer Programming I

8:00 – 8:50 am: Biology East 100
9:00 – 9:50 am: Modern Languages 350

Description of Course

This course provides an introduction to programming using the Python programming language. We will explore common computational problem-solving techniques useful to computer scientists but also to anyone who has large data sets, repetitive processes or other needs for computation. No prior programming experience is assumed, although students should know the basics of using a computer (e.g., using a web browser and word processing program).

Course Prerequisites or Co-requisites

College Algebra

Instructor and Contact Information

Name: Allison Obourn

Email: aeobourn@cs.arizona.edu

Office: GS 858

Office hours: Wednesdays 10 – 11, Wednesdays 12 – 1, or by appointment

This course has 20 section leaders. Their contact information and study center hours can be found on the course web site.

Course web page: <http://www.cs.arizona.edu/classes/cs110/fall16>

Course Objectives and Expected Learning Outcomes

- Students should be comfortable writing 50-line programs in Python.
- Students should be able to write programs that solve problems using repetitive control structures and selection.
- Students should be proficient in using simple data structures such as strings and lists.
- Students should know how to decompose a problem.
- Students should know how to debug and test a program.

Absence and Class Participation Policy

You will be expected to participate in a Wednesday or Thursday discussion section. Each student will be assigned a section participation score that is weighted the same as one homework assignment. You will receive up to **3 points** for each section you participate in, up to a maximum of 34 points. Two of those points will be awarded for successful completion of short take-home problems that will be due at the start of each week's section.

Lecture attendance isn't graded but is strongly encouraged.

The UA's policy concerning Class Attendance, Participation, and Administrative Drops is available at <http://catalog.arizona.edu/policy/class-attendance-participation-and-administrative-drop>

The UA policy regarding absences for any sincerely held religious belief, observance or practice will be accommodated where reasonable: <http://policy.arizona.edu/human-resources/religious-accommodation-policy>.

Absences preapproved by the UA Dean of Students (or dean's designee) will be honored. See <https://deanofstudents.arizona.edu/absences>

Participating in the course and attending lectures and other course events are vital to the learning process. As such, attendance is strongly encouraged at all lectures and discussion section meetings.

Makeup Policy for Students Who Register Late

Students who register late may not make up any missed work.

Course Communications

Course announcements will be listed on the web site and/or sent to your official UA e-mail address.

Required Texts or Readings

Recommended: Python Programming: An Introduction to Computer Science by John Zelle
ISBN: 978-1590282755

Available from Amazon in paper form and RedShelf in eBook form

Nothing will be assigned out of this book. Students will receive all information they need to complete assignments through class resources.

Assignments and Examinations: Schedule/Due Dates

Students will be required to complete 12 programming projects. These will be assigned on Wednesdays and due the next Tuesday night. Students will receive their grades and feedback by the end of the day on the following Monday.

Midterm 1: September 23rd in class

Midterm 2: October 28th in class

Students are not allowed to resubmit assignments for any reason.

Final Examination

Lecture 1 (8:00 am): Wednesday, 12/14/16, 8:00 – 10:00 am

Lecture 2 (9:00 am): Tuesday, 12/13/16, 10:30 am – 12:30 pm

Final examination information and schedules can be found at the following two locations:

<https://www.registrar.arizona.edu/courses/final-examination-regulations-and-information>

<http://www.registrar.arizona.edu/schedules/finals.htm>

Grading Scale and Policies

45%	weekly programming projects (including section participation)
15%	midterm 1
15%	midterm 2
25%	final exam

Each student receives **8 "late days"** for use on programming projects. A late day allows you to submit a program up to 24 hours late without penalty. For example, you could use 2 late days and submit a program due Tuesday 9pm on Thursday by 9pm with no penalty. Once a student has used up all the late days, each successive day that an assignment is late will result in a loss of 1 point on that assignment. Regardless of how many late days you have, **you may not submit a program more than 4 days after it is due** or after

the last day of class. Students will not be given extensions unless they have extenuating circumstances as decided by the instructor.

Make-up exams will not be given except in case of a serious emergency. If you must miss an exam, even if you are sick or injured, you must contact Allison **before** the exam (or arrange for someone to do so). You must show evidence that you are physically unable to take the exam, such as a clear and specific doctor's note mentioning the date, exam, and reason. No make-ups will be granted for personal reasons such as travel, personal hardship, leisure, or to ease exam week schedules. **No student will be permitted to take an exam early for any reason.**

Requests for incomplete (I) or withdrawal (W) must be made in accordance with University policies, which are available at <http://catalog.arizona.edu/policy/grades-and-grading-system#incomplete> and <http://catalog.arizona.edu/policy/grades-and-grading-system#Withdrawal>, respectively.

Dispute of Grade Policy: All regrade requests for programming projects must be made within two weeks of when the grade is returned. All regrade requests for exams must be made within one week of when the exam is returned.

Scheduled Topics/Activities

Week	Topics
1	Functions, expressions and variables
2	For loops, nested for loops and parameters project 1 due
3	Parameters, graphics and returns project 2 due
4	Input, if/else and cumulative algorithms project 3 due
5	Fencepost loops, while loops and random midterm 1 on 9/23
6	Boolean logic, basic lists and basic file processing project 4 due
7	Advanced file processing and advanced lists project 5 due
8	Assertions and dictionaries project 6 due
9	Dictionaries and multidimensional structures project 7 due
10	2D lists midterm 2 on 10/28
11	Testing project 8 due
12	Searching and sorting project 9 due
13	Classes and objects project 10 due
14	Inheritance and more advanced objects project 11 due
15	Advanced objects and review project 12 due

Department of Computer Science Code of Conduct

The Department of Computer Science is committed to providing and maintaining a supportive educational environment for all. We strive to be welcoming and inclusive, respect privacy and confidentiality, behave respectfully and courteously, and practice intellectual honesty. Disruptive behaviors (such as physical or emotional harassment, dismissive attitudes, and abuse of department resources) will not be tolerated. The complete Code of Conduct is available on our department web site.

We expect that you will adhere to this code, as well as the UA Student Code of Conduct, while you are a member of this class.

Classroom Behavior Policy

To foster a positive learning environment, students and instructors have a shared responsibility. We want a safe, welcoming, and inclusive environment where all of us feel comfortable with each other and where we can challenge ourselves to succeed. To that end, our focus is on the tasks at hand and not on extraneous activities (e.g., texting, chatting, reading a newspaper, making phone calls, web surfing, etc.).

Students are asked to refrain from disruptive conversations with people sitting around them during lecture. Students observed engaging in disruptive activity will be asked to cease this behavior. Those who continue to disrupt the class will be asked to leave lecture or discussion and may be reported to the Dean of Students.

Threatening Behavior Policy

The UA Threatening Behavior by Students Policy prohibits threats of physical harm to any member of the University community, including to oneself. See <http://policy.arizona.edu/education-and-student-affairs/threatening-behavior-students>.

Accessibility and Accommodations

Our goal in this classroom is that learning experiences be as accessible as possible. If you anticipate or experience physical or academic barriers based on disability, please let me know immediately so that we can discuss options. You are also welcome to contact the Disability Resource Center (520-621-3268) to establish reasonable accommodations. For additional information on the Disability Resource Center and reasonable accommodations, please visit <http://drc.arizona.edu>.

If you have reasonable accommodations, please plan to meet with me by appointment or during office hours to discuss accommodations and how my course requirements and activities may impact your ability to fully participate.

Please be aware that the accessible table and chairs in this room should remain available for students who find that standard classroom seating is not usable.

Code of Academic Integrity

Programming assignments must be completed individually; all code you submit must be your own work. You may discuss general ideas of how to approach an assignment, but never specific details about the code to write. Any help you receive from or provide to classmates should be limited and should never involve details of how to code a solution. You must abide by the following rules:

- You may not work as a partner with another student on an assignment.
- You may not show another student your solution to an assignment, nor look at his/her solution, for any reason.
- You may not have another person "walk you through" an assignment, describe in detail how to solve it, or sit with you as you write it. You also may not provide such help to another student. This includes current or former students, tutors, friends, SLs, paid consultants, people on the Internet, or anyone else.
- You may not post your homework solution code online to ask others for help. This includes public message boards, forums, file sharing sites and services, or any other online system.

Under our policy, a student who gives inappropriate help is equally guilty with one who receives it. Instead of providing such help to someone who does not understand an assignment, please point them to other class resources such as lecture examples, the textbook, the IPL, or a SL or instructor. You must not share your solution and ideas with others. You must also ensure that your work is not copied by others, such as making sure to log out of shared computers, not leaving printouts of your code in public places, and not emailing your code to other students or posting it on the web.

If you are retaking the course, you may resubmit a previous solution unless that program was involved in an academic misconduct case. If misconduct was found, you must write a new version of that program.

We enforce this policy vigorously by running similarity detection software a few times per quarter over all submitted student programs, including programs from past quarters. Students who violate the policy are offered reduced scores and sometimes sent to a University committee. This can lead to marks on permanent academic records. Generally several dozen students each quarter are given reduced scores for violating these policies. Please be careful, and contact the instructor if you are unsure whether a particular behavior falls within our policy.

Students are encouraged to share intellectual views and discuss freely the principles and applications of course materials. However, graded work/exercises must be the product of independent effort unless otherwise instructed. Students are expected to adhere to the UA Code of Academic Integrity as described in the UA General Catalog. See <http://deanofstudents.arizona.edu/academic-integrity/students/academic-integrity>.

The University Libraries have some excellent tips for avoiding plagiarism, available at <http://www.library.arizona.edu/help/tutorials/plagiarism/index.html>.

Selling class notes and/or other course materials to other students or to a third party for resale is not permitted without the instructor's express written consent. Violations to this and other course rules are subject to the Code of Academic Integrity and may result in course sanctions. Additionally, students who use D2L or UA e-mail to sell or buy these copyrighted materials are subject to Code of Conduct Violations for misuse of student e-mail addresses. This conduct may also constitute copyright infringement.

UA Nondiscrimination and Anti-harassment Policy

The University is committed to creating and maintaining an environment free of discrimination; see <http://policy.arizona.edu/human-resources/nondiscrimination-and-anti-harassment-policy>

Our classroom is a place where everyone is encouraged to express well-formed opinions and their reasons for those opinions. We also want to create a tolerant and open environment where such opinions can be expressed without resorting to bullying or discrimination of others.

Additional Resources for Students

UA Academic policies and procedures are available at <http://catalog.arizona.edu/policies>

Student Assistance and Advocacy information is available at <http://deanofstudents.arizona.edu/student-assistance/students/student-assistance>

Subject to Change Statement

Information contained in the course syllabus, other than the grade and absence policy, may be subject to change with advance notice, as deemed appropriate by the instructor.