Syllabus

CSc 110 Computer Programming I

Adriana Picoral (she/her/hers)

Spring 2024

Location and Times

This course is scheduled to be an in-person course, meeting in-person three times a week. There are multiple sections of the course with various meeting times. Your meeting time should be one of the following:

- Gittings Room 129b, 1:00-1:50pm, MWF
- Gittings Room 129b, 2:00-2:50pm, MWF

This is a four-unit course, meeting in the lecture room three times a week (MWF). The weekly in-person lab sessions are flexible, meaning students have a number of time slots to choose from. To schedule your lab session go to the weekly lab session spreadsheet.

Take a look on UAccess for your designated section. Attendance is expected and required.

If you need an exception due to a medical or visa issue, please reach out to the DRC or instructor.

Course Description

An introduction to programming with an emphasis on solving problems drawn from a variety of domains. Topics include basic control and data structures, problem solving strategies, and software development tools and techniques. Specifically, the Python programming language will be taught.

Browse the UA catalog for official UA course descriptions.

Instructor, Teaching Staff, and Contact Information

- Instructor:
  - Adriana Picoral
    - Office: Gould-Simpson 811
    - Email: adrianaps@arizona.edu
    - Instructor Website: adrianapicoral.com
    - Office hours (open door, drop in, my office GS 811):
      - Tuesday 1:00pm to 3:00pm
      - Wednesday 11:30am to 12:30pm

There will also be many undergraduate TAs. See the class website for their contact info!

Course Format and Teaching Methods

The course will have three required meeting times per-week. The in-class experience will consist of a combination of lecture, programming demonstrations (live coding), and in-class activities. This course will use active learning, peer-teaching, and flipped-classroom teaching techniques.

By active learning, I mean that class time won't be just 50 minutes of me talking. Instead, class meetings will include a number of in-class activities (ICAs) for you to work on individually and/or in a group. Thus, you can spend some time **actively** learning (instead of passively listening to the instructor).

By peer-teaching, I mean that you will have opportunities to learn from your classmates, and vice-versa. In many of the in-class activities, you will be able to work on groups and help each-other when necessary.

By flipped-classroom, I mean that you will often be assigned reading or other material to complete before attending each class meeting time. By doing this, you will come to class with (at least some) preparation. This will hopefully result in more class time allocated towards active learning!

Obtaining Help

- Academic advising: If you have questions about your academic progress this semester, or your chosen degree program, consider contacting your department's academic advisor(s). Your academic advisor and the Advising Resource Center can guide you toward university resources to help you succeed. Computer Science major students are encouraged to visit https://www.cs.arizona.edu/undergraduate/advising for advisor contact information.
- CS Tutor Center: The Department of Computer Science offers FREE tutoring for students enrolled in CSC courses. You can view tutor schedules and sign up for tutoring sessions by visiting our CS Tutoring Page.
- CS Help Desk: The Computer Science IT team can help students with department technology issues including logging into/resetting your Lectura account, printing in the 930 lab, etc. You can submit a ticket for help by visiting the Computer Science Lab Helpdesk (note, requires UA login).
- Life challenges: If you are experiencing unexpected barriers to your success in your courses, please note the Dean of Students Office is a central support resource for all students and may be helpful. The Dean of Students Office can be reached at 520-621-7057 or DOS-deanofstudents@email.arizona.edu.
- Physical and mental-health challenges: If you are facing physical or mental health challenges this semester, please note that Campus Health provides quality medical and mental health care. For medical appointments, call (520-621-9202. For After Hours care, call (520) 570-7898. For the Counseling & Psych Services (CAPS) 24/7 hotline, call (520) 621-3334.
- UA Ombuds: The UA Ombuds Office (https://ombuds.arizona.edu/) helps with a wide variety of issues, concerns, questions, conflicts, and challenges. The primary mission of the Ombuds Program is to assist individuals in resolving conflict, facilitating communication, and assisting the University by surfacing issues and providing feedback on emerging or systemic concerns. Communications with the Ombuds Committee are informal and off-the-record. The Ombuds Committee is governed by the following standards: (1) Confidentiality; (2) Impartiality: (3) Informality; and (4) Independence.

Course Objectives

By the end of the semester, you should be able to write complete, well-structured programs in python.

Expected Learning Outcomes

This successful CSc 110 student will be able to:

- Use variables, control structures, basic data types, lists, dictionaries, file I/O, and functions to write correct 100 - 200 line programs.
- Decompose a problem into an appropriate set of functions, loops, conditionals, and/or other control flow.
- Find bugs when code is not working as expected using print statements and computational thinking skills, and will be able to understand and resolve errors.
- Write clean, well-structured, and readable code.
- Follow a provided style guide to write clean, well-structured, and readable code.
- Explain the conceptual memory model underlying the data types covered in class, and demonstrate the ability to convert integers and text to and from binary.

(These learning outcomes are derived from ones developed by Allison Obourn, Ben Dicken and other faculty at the UA).

Absence and Class Participation Policy

Participating in the course and attending the in-person lectures and other course events are vital to the learning process. As such, attendance is required at all lectures.

Administrative Drops

Every semester, students enroll in introductory CS classes but do not submit any work, resulting in a grade of `E` at the end of the term. To prevent this, at the end of the **second week** (January 19), all students who have not submitted/completed **five or more** of the following will be administratively dropped:

1. Class presence on January 10
2. January 10 quiz
3. Class presence on January 12
4. Beginning of semester survey
5. January 17 quiz
6. Module 1 Programming Problem 1
7. Module 1 Programming Problem 2
8. Class presence on January 19

In addition, to ensure your success in this course, and that you are on top of the work that is due every week, administrative drops will be in place throughout the semester. Students who miss coursework for two weeks or more often get an E at the end of the term in this course. After the second week of class, at any point during the semester if you fail to attend class and submit assignments for two consecutive weeks you will be administratively dropped.

Illnesses and Emergencies

- If you feel sick, or may have been in contact with someone who is infectious, stay home. Except for seeking medical care, avoid contact with others and do not travel.
- Notify your instructor if you will be missing up to one week of course meetings and/or assignment deadlines.
- If you must miss the equivalent of more than one week of class and have an emergency, the Dean of Students is the proper office to contact (DOS-deanofstudents@email.arizona.edu). The Dean of Students considers the following as qualified emergencies: the birth of a child, mental health hospitalization, domestic violence matter, house fire, hospitalization for physical health (concussion/emergency surgery/coma/COVID-19 complications/ICU), death of immediate family, Title IX matters, etc.

- Please understand that there is no guarantee of an extension when you are absent from class and/or miss a deadline.

Makeup Policy for Students Who Register Late

If you register after the first class meeting you may make up missed assignments within your first week of attendance. You are responsible for contacting the instructor within that first week to have extensions set-up. The instructor will not be contacting you directly, you have to initiate this process to make up missed work. If you do not, the instructor will assume you are not interested in making up missed assignments.

Course Communications

All online communication will be conducted through my official UA e-mail address (adrianaps@arizona.edu) D2L, and Discord.

Required Texts or Readings

All readings, videos, and assignment instructions will be available in the course website.

- Course D2L: https://d2l.arizona.edu/d2l/home/1386086
- Course Gradescope: https://www.gradescope.com/courses/676322
- Course website: https://adrianapicoral.com/csc-110/

Assignments and Examinations: Schedule/Due Dates

The breakdown of grades in this course is as follows:

- 45% exams
- 25% weekly quizzes
- 5% programming problems
- 10% short programming projects
- 15% programming projects

There will be four exams throughout the course (including the final), for a total of 45%. These exams may cover material from class, the programming assignments, the final project, and the readings. Three exams of these exams will be during the semester, the lowest grade will be dropped (each of the two remaining exam grades is worth 15% of your final grade). If you would like an exam regraded, we reserve the right to regrade the entire exam, not only the parts you might question.

The midterm exams will be on:

- Midterm Exam 1 - Wed, Feb 14
- Midterm Exam 2 - Wed, Mar 27
- Midterm Exam 3 - Wed, Apr 24

You must keep theses dates available. Do not schedule any flights, travel plans, or other conflicts with these exams.

Weekly quizzes will be held every Wednesday (unless otherwise noted). The 2 (two) lowest grades for quizzes will be dropped from final grade calculations.

Short programming projects are due on the same day as programming problems. While the instructions for programming problems are on the website, instructions for short projects will be available only during our weekly 50-minute in-person lab sessions. The lowest grade for short programming projects will be dropped at the end of the semester. There will be one lab session (the week of March 25) for you to work on a maximum of two short programming project submissions you have missed.

To schedule your lab session go to the weekly lab session spreadsheet.

Late Work

For programming problems and projects, late work is not accepted

Extra Credit

Up to 1 point of extra credit will be awarded to students who come to office hours in person. Check our office hours schedule on the website https://adrianapicoral.com/csc-110/tas.html and ask the TA or instructor to submit your points to gradescope.

You are required to ask a question and/or work on an assignment or practice problem with the TA or instructor to receive 0.5 points for each office hour attendance. It is your responsibility to ensure the TA or instructor enter your 0.5 points on gradescope during the session. Instructors will not award you these points at a later date, do not email instructors about getting points at a later date (for example, if you forget to ask the TA to enter your office hour points on gradescope).

Your first TA office visit should take place before the Midterm 1 date, and the second visit should take place before the Midterm 2 date.

Final Examination

The final exam is worth 15%.

The final exam will be on:

- Fri, May 03 – 6:00pm - 8:00pm in ENR2 N120

You must keep this time available. Do not schedule any flights, travel plans, or other conflicts with these exams.

See also Final Exam Regulations and Schedule: https://registrar.arizona.edu/finals

Grading Scale and Policies

The instructor and teaching staff will do their best to have grades back to students within 1 week. This includes, but is not limited to, grades for exams, projects, programming assignments, attendance, and quizzes. Once a grade has been entered for a particular item on the digital grade-book, students have at most **5 days to dispute** the grade. This includes disputes related to excuses such as sickness, personal matters, dean's excuses, etc. If 5 days pass and there has not been such a request, the grade is final.

The correspondence between percentage grade and numeric grade is as follows:

- Greater or equal to 90% at least an A
- Greater or equal to 80% at least a B
- Greater or equal to 70% at least a C
- Greater or equal to 60% at least a D
- Anything less, at least an E / F

Incomplete (I) or Withdrawal (W):

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.

Honors Credit

Students wishing to contract this course for Honors Credit should e-mail me to set up an appointment to discuss the terms of the contact and to sign the Honors Course Contract Request Form. The form is available at http://www.honors.arizona.edu/honors-contracts.

Scheduled Topics and Activities

List topics in logical units in a weekly/daily schedule, including assignment due dates and exam dates can also be found on the course website.

Week	Start Date	Topic
1	Jan 10	Python Basics (constants, variables, comments, strings, print)
2	Jan 17	Operators and Expressions, intro to functions
3	Jan 24	Functions, input from user
4	Jan 31	Control Flow (if statements)
5	Feb 07	Control Flow (while)
6	Feb 14	Data Structures (lists)
7	Feb 21	Control Flow (for loops), mutability, random
8	Feb 28	Control Flow (for loops), Dictionaries
Spring recess	Mar 06	Spring recess
9	Mar 11	Files and strings
10	Mar 18	2D lists, nested for loops
11	Mar 25	Data Structures (tuples)
12	Apr 01	Data Structures (sets)
13	Apr 08	Mutability
14	Apr 15	Control Flow + Data Structures
15	Apr 22	Sorting, Exception handling
16	Apr 29	Review
17	May 03	Final Exam

The schedule may be adjusted based on instructor discretion.

Holidays

We won't have classes due to university-wide holidays on the following dates:

Week	Date	Holiday
1	Mon, Jan 15	Martin Luther King Jr Holiday
Spring recess	Sat, Mar 02	March 2-10, 2024

Assignment due dates

Assessment	Date	Time/Location
Quiz 01	Wednesday, January 10, 2024	in class
Survey	Friday, January 12, 2024	7pm
Quiz 02	Wednesday, January 17, 2024	in class
Module 1 Programming Problems	Thursday, January 18, 2024	7pm
Module 2 Programming Problems	Tuesday, January 23, 2024	7pm
Short Programming Project 1	Tuesday, January 23, 2024	7pm
Quiz 03	Wednesday, January 24, 2024	in class
Programming Project 1	Thursday, January 25, 2024	7pm
Module 3 Programming Problems	Tuesday, January 30, 2024	7pm
Short Programming Project 2	Tuesday, January 30, 2024	7pm
Quiz 04	Wednesday, January 31, 2024	in class
Programming Project 2	Thursday, February 01, 2024	7pm
Module 4 Programming Problems	Tuesday, February 06, 2024	7pm
Short Programming Project 3	Tuesday, February 06, 2024	7pm
Quiz 05	Wednesday, February 07, 2024	in class
Programming Project 3	Thursday, February 08, 2024	7pm
Midterm 1	Wednesday, February 14, 2024	in class
Module 5 Programming Problems	Friday, February 16, 2024	7pm
Short Programming Project 4	Friday, February 16, 2024	7pm
Programming Project 4	Monday, February 19, 2024	7pm
Module 6 Programming Problems	Tuesday, February 20, 2024	7pm
Quiz 06	Wednesday, February 21, 2024	in class
Module 7 Programming Problems	Tuesday, February 27, 2024	7pm
Short Programming Project 5	Tuesday, February 27, 2024	7pm
Quiz 07	Wednesday, February 28, 2024	in class
Programming Project 5	Thursday, February 29, 2024	7pm
Short Programming Project 6	Tuesday, March 12, 2024	7pm
Quiz 08	Wednesday, March 13, 2024	in class
Programming Project 6	Thursday, March 14, 2024	7pm
Module 8 Programming Problems	Tuesday, March 19, 2024	7pm
Short Programming Project 7	Tuesday, March 19, 2024	7pm
Quiz 09	Wednesday, March 20, 2024	in class
Programming Project 7	Thursday, March 21, 2024	7pm
Midterm 2	Wednesday, March 27, 2024	in class
Module 9 Programming Problems	Thursday, March 28, 2024	7pm
Module 10 Programming Problems	Tuesday, April 02, 2024	7pm
Short Programming Project 8	Tuesday, April 02, 2024	7pm
Quiz 10	Wednesday, April 03, 2024	in class
Programming Project 8	Thursday, April 04, 2024	7pm
Module 11 Programming Problems	Tuesday, April 09, 2024	7pm
Short Programming Project 9	Tuesday, April 09, 2024	7pm
Quiz 11	Wednesday, April 10, 2024	in class
Programming Project 9	Thursday, April 11, 2024	7pm
Module 12 Programming Problems	Tuesday, April 16, 2024	7pm

Assessment	Date	Time/Location
Short Programming Project 10	Tuesday, April 16, 2024	7pm
Quiz 12	Wednesday, April 17, 2024	in class
Programming Project 10	Thursday, April 18, 2024	7pm
Midterm 3	Wednesday, April 24, 2024	in class
Module 13 Programming Problems	Thursday, April 25, 2024	7pm
Module 14 Programming Problems	Tuesday, April 30, 2024	7pm
Short Programming Project 11	Tuesday, April 30, 2024	7pm
Programming Project 11	Wednesday, May 01, 2024	7pm
Final Exam	Friday, May 03, 2024	ENR2 N120

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.

Code of Academic Integrity

All work you submit for grading in this course must be your own. Submitting work that includes many (minor and/or major) components that are not your own work is considered plagiarism. Instances of plagiarism will be reported to the Dean of Students.

Keep in mind that all assignments and practice problems provided in this course are meant to help you to practice the skills that you will need for graded work (including on paper quizzes and exams), so it is generally in your best interest to avoid taking shortcuts even on these assignments.

Students are expected to adhere to the UA Code of Academic Integrity as described in the UA General Catalog. See https://deanofstudents.arizona.edu/student-rights-responsibilities/academic-integrity.

Uploading material from this course to a website other than D2L is strictly prohibited and will be considered a violation of the course policy and a violation of the code of academic integrity. Obtaining material associated with this course (or previous offerings of this course) on a site other than D2L and the course website, such as Chegg, Course Hero, etc. or accessing these sites during a quiz or exam is a violation of the code of academic integrity. Any student determined to have uploaded or accessed material in an unauthorized manner will be reported to the Dean of Students for a Code of Academic Integrity violation, with a recommended sanction of a failing grade in the course (faculty can replace this sanction with whatever sanction they plan to use for their course).

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.

Safety on Campus and in the Classroom

For a list of emergency procedures for all types of incidents, please visit the website of the Critical Incident Response Team (CIRT): https://cirt.arizona.edu/case-emergency/overview

Also watch the video available at https://arizona.sabacloud.com/Saba/Web_spf/NA7P1PRD161/common/learningeventdetail/crtfy000000000003560

University-wide Policies link

Links to the following UA policies are provided here, http://catalog.arizona.edu/syllabus-policies:

- Absence and Class Participation Policies
- Threatening Behavior Policy
- Accessibility and Accommodations Policy
- Code of Academic Integrity
- Nondiscrimination and Anti-Harassment Policy

Department-wide Syllabus Policies and Resources link

Links to the following departmental syllabus policies and resources are provided here, https://www.cs.arizona.edu/cs-course-syllabus-policies :

- Department Code of Conduct
- Class Recordings
- Illnesses and Emergencies
- Obtaining Help
- Preferred Names and Pronouns
- Confidentiality of Student Records
- Additional Resources
- Land Acknowledgement Statement

Confidentiality of Student Records

Student education records are considered confidential and may not be released without the written consent of the student. For more information visit http://www.registrar.arizona.edu/ferpa.

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.