# **CSc 110 Computer Programming I**

Biol Sci West, Rm 301, MoWeFr 2:00pm-2:50pm

## **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.

### **Instructor and Contact Information**

Professor Hudson Lynam, GS Room 823, 775-750-5038, hlynam@arizona.edu

Office Hours: Monday & Wednesday, 12:50pm-1:50pm Course D2L: https://d2l.arizona.edu/d2l/home/1658797

Course Gradescope: https://www.gradescope.com/courses/1092416

Course website: <a href="https://professorlynam.github.io/csc110/">https://professorlynam.github.io/csc110/</a> Piazza: <a href="https://piazza.com/arizona/fall2025/csc110002">https://piazza.com/arizona/fall2025/csc110002</a>

(Access code: glxonh1ytum)

## **Course Format and Teaching Methods**

This course is scheduled to be an in-person course, meeting in-person three times a week. Your meeting time should be:

Biol Sci West, Rm 301, Monday, Wednesday, and Friday 2:00pm-2:50pm

This is a four-unit course, meeting in the lecture room three times a week. 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.

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 Objectives**

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

## **Expected Learning Outcomes**

A 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.

1

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

8/7/25

#### **Transferable Career Skills**

### National Association of Colleges and Employers (NACE) Career Readiness:

Career readiness is a foundation from which to demonstrate requisite core competencies that broadly prepare the college-educated for success in the workplace and lifelong career management. For new college graduates, career readiness is key to ensuring successful entrance into the workforce.

There are eight career readiness competencies, each of which can be demonstrated in a variety of ways." (NACE, 2025)

- Career & Self Development
- Communication
- Critical Thinking
- Equity & Inclusion
- Leadership
- Professionalism
- Teamwork
- Technology

In this course, we will focus on the following competencies:

- **Technology**: Students will use technology to design and write complete, well-structured programs in Python.
- **Teamwork**: The course will include lectures, in-class discussions, and activities, with a strong emphasis on teamwork through group work that requires collaboration with other students during class.
- Communication: Students are encouraged to emphasize communication by interacting with teaching assistants and using various channels, such as office hours, Gradescope, class discussions, and Piazza, to stay updated on course materials.

### 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.

### **Course Communications**

All online communication will be conducted through my official UA e-mail address (hlynam@arizona.edu), D2L, and Piazza. Ask questions on Piazza when you have questions about assignments, quizzes, and exams (has private options). Email the instructor only when you have logistics-related questions.

### 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/1658797

Course Gradescope: <a href="https://www.gradescope.com/courses/1092416">https://www.gradescope.com/courses/1092416</a>

Course website: <a href="https://professorlynam.github.io/csc110/">https://professorlynam.github.io/csc110/</a> Piazza: <a href="https://piazza.com/arizona/fall2025/csc110002">https://piazza.com/arizona/fall2025/csc110002</a>

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# **Assignments and Examinations: Schedule/Due Dates**

The breakdown of grades in this course is as follows:

45% exams

20% weekly quizzes 10% programming problems 10% short programming projects 15% programming projects

There will be three exams (each 15%) throughout the course (including two midterms and one final exam), for a total of 45%. These exams may cover material from class, the programming assignments, the projects, and the readings. If you score higher on Midterm 2 than on Midterm 1, we will use your Midterm 2 grade for both. However, we will not do the reverse — a higher Midterm 1 grade will not replace a lower Midterm 2 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, Oct 08 Midterm Exam 2 - Wed, Nov 05

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). There will be a total of 12 quizzes. Make-up quizzes will not be offered, however, your 2 lowest quiz scores will be dropped when calculating your final grade.

For programming problems, short projects and long projects, late work is NOT accepted.

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 TAs and Office Hours 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 date, time and room is: 12/12/25, 6:00pm-8:00pm, Room TBA.

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

See also: Final Exam Regulations and Final Exam Schedule: <a href="https://registrar.arizona.edu/faculty-staff-resources/room-class-scheduling/schedule-classes/final-exams">https://registrar.arizona.edu/faculty-staff-resources/room-class-scheduling/schedule-classes/final-exams</a>

## **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. Appeals submitted after this period will not be considered by the instructor or teaching staff under any circumstances. Please review your grades promptly and plan accordingly.

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

Department of Computer Science Grading Policy:

Instructors will explicitly promise when every assignment and exam will be graded and returned to students. These promised dates will appear in the syllabus, associated with the corresponding due dates and exam dates.

Graded homework will be returned before the next homework is due.

Exams will be returned "promptly", as defined by the instructor (and as promised in the syllabus).

Grading delays beyond promised return-by dates will be announced as soon as possible with an explanation for the delay.

### Incomplete (I) or Withdrawal (W):

Requests for incomplete (I) or withdrawal (W) must be made in accordance with University policies, which are available at https://catalog.arizona.edu/policy/courses-credit/grading/grading-system.

#### **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

4

## **Scheduled Topic and Activities**

| Week | Start Date | Module       | Topic  |  |
|------|------------|--------------|--|--|
| 1    | Aug 25     | Module 1     | Python Basics (constants, variables, comments, strings, print) |  |
| 2    | Sep 01     | Module 2     | Operators and Expressions, functions                           |  |
| 3    | Sep 08     | Module 3     | Functions, decomposition                                       |  |
| 4    | Sep 15     | Module 4     | Functions, input from user, decomposition                      |  |
| 5    | Sep 22     | Module 5     | Control Flow (if statements)                                   |  |
| 6    | Sep 29     | Module 6     | Control Flow (while)   |  |
| 7    | Oct 06     | Module 7     | Data Structures (lists)  |  |
| 8    | Oct 13     | Module 8     | Control Flow (for loops), mutability, random                   |  |
| 9    | Oct 20     | Module 9     | Control Flow (for loops), Dictionaries                         |  |
| 10   | Oct 27     | Module<br>10 | Files and strings  |  |
| 11   | Nov 03     | Module<br>11 | Data Structures (tuples)                                       |  |
| 12   | Nov 10     | Module<br>12 | 2D lists, nested for loops                                     |  |
| 13   | Nov 17     | Module<br>13 | Data Structures (sets)   |  |
| 14   | Nov 24     | Module       | Mutability   |  |

8/7/25

| Week | Start Date | Module       | Topic                          |
|------|------------|--------------|--------------------------------|
|      |            | 14           |                                |
| 15   | Dec 01     | Module<br>15 | Control Flow + Data Structures |

## **Assignment Due Dates**

| Assignment Due Dates Assessment  | Date                             | Time/Location |
|----------------------------------|----------------------------------|---------------|
| Quiz 01                          | Wednesday, August 27,<br>2025    | in class      |
| Quiz 02                          | Wednesday, September 03, 2025    | in class      |
| Module 1 Programming<br>Problems | Friday, September 05,<br>2025    | 9pm           |
| Quiz 03                          | Wednesday, September<br>10, 2025 | in class      |
| Module 2 Programming<br>Problems | Wednesday, September 10, 2025    | 9pm           |
| Short Programming Project<br>1   | Wednesday, September<br>10, 2025 | 9pm           |
| Programming Project 1            | Friday, September 12,<br>2025    | 9pm           |
| Quiz 04                          | Wednesday, September<br>17, 2025 | in class      |
| Module 3 Programming<br>Problems | Wednesday, September<br>17, 2025 | 9pm           |
| Short Programming Project<br>2   | Wednesday, September<br>17, 2025 | 9pm           |
| Programming Project 2            | Friday, September 19,<br>2025    | 9pm           |
| Quiz 05                          | Wednesday, September 24, 2025    | in class      |
| Module 4 Programming<br>Problems | Wednesday, September<br>24, 2025 | 9pm           |
| Short Programming Project 3      | Wednesday, September<br>24, 2025 | 9pm           |
| Programming Project 3            | Friday, September 26,<br>2025    | 9pm           |
| Quiz 06                          | Wednesday, October 1,<br>2025    | in class      |
| Module 5 Programming<br>Problems | Wednesday, October 01,<br>2025   | 9pm           |
| Short Programming Project<br>4   | Wednesday, October 01,<br>2025   | 9pm           |
| Programming Project 4            | Friday, October 03, 2025         | 9pm           |
| Midterm 1                        | Wednesday, October 08,<br>2025   | in class      |
| Module 6 Programming<br>Problems | Friday, October 10, 2025         | 9pm           |
| Short Programming Project        | Friday, October 10, 2025         | 9pm           |

| Assessment                        | Date                            | Time/Location |
|-----------------------------------|---------------------------------|---------------|
| 5                                 |                                 |               |
| Programming Project 5             | Monday, October 13, 2025        | 9pm           |
| Quiz 07                           | Wednesday, October 15,<br>2025  | in class      |
| Module 7 Programming<br>Problems  | Wednesday, October 15,<br>2025  | 9pm           |
| Short Programming Project 6       | Wednesday, October 15,<br>2025  | 9pm           |
| Programming Project 6             | Friday, October 17, 2025        | 9pm           |
| Quiz 08                           | Wednesday, October 22,<br>2025  | in class      |
| Module 8 Programming<br>Problems  | Wednesday, October 22,<br>2025  | 9pm           |
| Short Programming Project 7       | Wednesday, October 22,<br>2025  | 9pm           |
| Programming Project 7             | Friday, October 24, 2025        | 9pm           |
| Quiz 09                           | Wednesday, October 29,<br>2025  | in class      |
| Module 9 Programming<br>Problems  | Wednesday, October 29,<br>2025  | 9pm           |
| Midterm 2                         | Wednesday, November 05,<br>2025 |               |
| Module 10 Programming<br>Problems | Wednesday, November 05,<br>2025 |               |
| Short Programming Project<br>8    | Wednesday, November 05,<br>2025 | 9pm           |
| Programming Project 8             | Friday, November 07,<br>2025    | 9pm           |
| Module 11 Programming<br>Problems | Wednesday, November 12, 2025    |               |
| Short Programming Project<br>9    | Wednesday, November 12,<br>2025 | 9pm           |
| Programming Project 9             | Friday, November 14,<br>2025    | 9pm           |
| Quiz 10                           | Wednesday, November 19,<br>2025 |               |
| Module 12 Programming<br>Problems | Wednesday, November 19,<br>2025 | •             |
| Short Programming Project<br>10   | Wednesday, November 19,<br>2025 | 9pm           |
| Programming Project 10            | Friday, November 21,<br>2025    | 9pm           |
| Quiz 11                           | Wednesday, November 26,<br>2025 |               |
| Module 13 Programming<br>Problems | Wednesday, November 26,<br>2025 | 9pm           |
| Short Programming Project         | Wednesday, November 26,         | 9pm           |

| Assessment                        | Date                         | Time/Location              |
|-----------------------------------|------------------------------|----------------------------|
| 11                                | 2025                         |                            |
| Programming Project 11            | 2025                         | 9pm                        |
| Quiz 12                           | Wednesday, November 03, 2025 | in class                   |
| Module 14 Programming<br>Problems | Friday, December 05,<br>2025 | 9pm                        |
| Short Programming Project<br>12   | Friday, December 05,<br>2025 | 9pm                        |
| Programming Project 12            | Monday, December 08,<br>2025 | 9pm                        |
| Final Exam                        | Friday, December 12,<br>2025 | 6:00pm-8:00pm,<br>Room TBA |

## **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.

# 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): <a href="https://cirt.arizona.edu/case-emergency/overview">https://cirt.arizona.edu/case-emergency/overview</a>

Also watch the video available at

https://arizona.sabacloud.com/Saba/Web spf/NA7P1PRD161/app/me/ledetail;spf-url=common%2Flearningeventdetail%2Fcrtfy0000000003841

## **University-wide Policies link**

Links to the following UA policies are provided here: https://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
- Class Recordings
- Additional Resources
- Preferred Names and Pronouns

# **Department-wide Syllabus Policies and Resources link**

Links to the following departmental syllabus policies and resources are provided here, <a href="https://www.cs.arizona.edu/cs-course-syllabus-policies">https://www.cs.arizona.edu/cs-course-syllabus-policies</a>:

- Department Code of Conduct
- Illnesses and Emergencies
- Obtaining Help
- Confidentiality of Student Records
- Land Acknowledgement Statement

## **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.