

CSC 210: Software Development

SYLLABUS: Summer 2025

Course Description

An introduction to the development of large scale software. Topics include modularization, design patterns, documentation, unit testing, source code control, build systems, debuggers, and performance tuning; these are the tools necessary for developing software as opposed to writing small programs.

Instructors and Contact Information

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Office Hours: Tuesdays and Wednesdays; 11:00 am to 12:30 am on [Zoom](#)

Teaching Assistants:

Name: Amyra Azhel White

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Name: Jakob Garcia

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Office Hours: Mondays and Thursdays; 9:30 am to 11:00 am on [Zoom](#)

Websites:

D2L: <https://d2l.arizona.edu/d2l/loginh>

Piazza: <https://piazza.com/arizona/summer2025/csc210>

Access code for piazza: **csc210**

Gradescope entry code: **PG387R**

Course Format and Teaching Methods

This is a 4 unit course and will be taught asynchronously in online modality. However, you are required to watch a week's lecture within the first few days of the scheduled week to be able to work on the assignments and other submissions. The midterms and final exam will also be online but will be on scheduled dates.

Students are responsible for reading the announcements posted on D2L and Piazza. Students are also responsible for completing all the posted assignments, labs, quizzes, and in-class activities that are posted on the class website (D2L) and to be submitted on Gradescope.

Course Objectives

The course plans to cover program decomposition, testing/debugging, the Java programming language, and different data structures and their implementations. This includes features inherent to the Java programming language specifically relating to object-oriented programming concepts.

Expected Learning Outcomes

When provided with a project specification, students will be able to decompose the solution into subproblems and iteratively develop the project using multiple interacting classes, class inheritance, and/or hierarchical data structures.

Given their own decomposition into subproblems, students will be able to use data structures provided in libraries, unit testing, and debugging to write a correct solution to each subproblem and integrate the subproblem solutions into a complete working project (using Java).

When provided example solution components and a rubric, students will be able to evaluate the decomposition, clarity, performance, and style of a program.

Students will be able to compare and contrast programming in two programming languages (Python and Java).

Given a problem, students will be able to choose an appropriate data structure to solve that problem. Given different implementations of a data structure, students will be able to compare and contrast the efficiencies of the different implementations.

Makeup Policy for Students Who Register Late

Students who register for class late will be allowed to make up missed assignments; all missed assignments will be due at the same time as the second programming assignment. Students will not be allowed to register for the class more than two weeks after it begins (06/23/25). The student is responsible for contacting the instructor to set up the extensions.

Course Communications

The primary path for outside-lecture communications will be Piazza. The Piazza link will be posted on D2L. Students are required to follow the announcements channel in Piazza and D2L to be aware of any information announced that is relevant to the class. If a student has an issue that cannot reasonably be resolved through Piazza (inappropriate to discuss publicly, private issue, etc.) then the student may email the instructor. Please include 'CSC 210 - Summer 2025' in the subject line.

Required Texts or Readings

Students will have required readings from the textbook *Java, Java, Java: Object-Oriented Problem Solving, 2024E*, by R. Morelli, R. Walde, B. Hoffman, and D. Cooper. This is available electronically here: <https://runestone.academy/ns/books/published/javajavajava/root-1-2-3.html>

Students are also responsible for the material provided in the lecture slides, which are posted on the class website before the lectures.

Assignments and Examinations: Schedule/Due Dates

I. Programming Assignments

This class will have regular programming assignments. Programming assignments will be submitted to Gradescope and will be due on Saturdays at 11:59 pm.

NOTE: All programming assignments must be done and submitted individually. You may not collaborate with other students on programming assignments or submit work from other sources such as ChatGPT (or any AI), stack overflow, GitHub, etc.

II. Activities

In-class Activities (ICAs)

Students will submit their solutions for the activities to receive credit for participating in the lecture. We will use Gradescope for this. You may discuss the ICA problems and work on solutions together with other classmates.

Quizzes

There will be approximately 9 short quizzes, to be submitted on Gradescope.

Lab Sessions (Labs)

Labs are asynchronous online and students will need to submit screenshots of their work done on Gradescope.

III. Midterms

There will be two midterms given on the following dates (tentative):

Midterm 1: Monday, June 30, 2025

Midterm 2: Monday, July 21, 2025

Note: Make-up midterm exams will not be given. At the end of the semester, I will replace your lowest midterm exam score with a percentage-equivalent copy of your final exam score, but only if the final score is higher than at least one of

your midterm scores. (Thus, this is a potential bonus but never a penalty.) I do this for two reasons: 1) to reward you for demonstrating an improved mastery of the material over the course of the semester, and 2) to allow for unforeseen circumstances that would cause you to miss a midterm exam.

Please note that should you miss both midterms under sub-extreme circumstances, you will definitely get a zero for the additional missed midterm.

IV. Regrades

For the programming assignments, students should contact their TA to ask for a regrade. For tests, students should use Gradescope's "Regrade Request" feature to ask the grader responsible for the question. In both cases, students should attempt to resolve the issue with that contact person, but they can escalate to the instructor if an acceptable solution cannot be reached.

Final Examination

The tentative final exam date and time is given below:

Wednesday, August 13, 2025

Final Exam Regulations and Final Exam Schedule:

<https://registrar.arizona.edu/faculty-staff-resources/room-course-scheduling/schedule-classes/final-exams/final-exams-fall-2025>

Syllabus Introduction to Honorlock

In this course, you'll have the convenience of taking your exams remotely, supported by [Honorlock \(opens in a new tab\)](#). To help you navigate the Honorlock process effortlessly, you will receive a Student Guide. To ensure a seamless testing experience, please have your CatCard or a government-issued ID ready for identity verification. Before initiating your exam, we recommend reviewing the system requirements and acquainting yourself with Honorlock's standard rules and expectations. There's no need to create an account or pre-schedule an appointment; Honorlock access is available 24/7 via D2L, ensuring flexibility in your testing schedule.

System Requirements

You must have a desktop or laptop with an operating system.

- Windows 10
- Windows 11
- MacOS 10.14 and higher
- ChromeOS 93 and higher

Note - Tablets and phones are not compatible.

Your device must have a **working** webcam and microphone.

Built-in or external devices are compatible.

Note - Honorlock is not compatible with Walmart Branded (ONN), Amcrest, and Nexigo Cameras.

- You will need stable internet connection speed.
 - Minimum 1.5 MBPS download and 750 KBPS upload.
- Must use Google Chrome version 120 and higher as your browser.

Check to see if your device meets [minimum system requirements \(opens in a new tab\)](#) by running a system check.

Honorlock's Standard Rules

Testing Area

Testing area should be as follows unless otherwise permitted by your instructor:

- Lighting in the room must be bright enough to show your face and the surrounding area in a clear and detailed manner.
- You should be seated at a desk or table. Laying down in bed or elsewhere when taking the exam is not allowed.
- You should clear your desk or table of all materials (e.g. books, papers, notebooks, calculators, etc.). **Only instructor approved materials are allowed.**
- No visible writing on the desk or walls is permitted.

- All third-party programs and windows (websites, Excel, Word, etc.) on the testing computer must be closed before logging into the proctored test environment.
- Loud music, television, or other distractions playing in the background are prohibited.
- No other people or parties are permitted near the testing environment, and all communication between you and other people is prohibited.

Testing Behavior

The following behavior is expected unless otherwise permitted by your instructor.

- You must not leave the room during the testing period at any time or take the computer to another room without Honorlock's permission.
- No breaks will be permitted.
- Use of hats, hoodies, headsets, or earplugs is prohibited.
- Cell phone use is prohibited.
- Your face must remain within view of the camera at all times.

Honorlock will not add additional time for proctoring questions or technical issues encountered during the exam.

Grading Scale and Policies

Point Distribution

Grades will be computed using the following weighting for the graded components of the class:

25%	Weekly programming assignments (PAs)
4%	In-class activities (ICAs)
3%	Quizzes
8%	Labs
40%	Midterms (20% each)
20%	Final

Grading Scale

The weighted score computed using the above distribution will translate to letter grades as follows:

90% and above:	A
80% and above, but below 90%:	B
70% and above, but below 80%:	C
60% and above, but below 70%:	D
Below 60%:	E

We will use a simple grade cutoff scheme. This means if you earn the number of points listed for a given grade, you are guaranteed that grade. At the end of the semester, I reserve the right to lower these cutoffs, but I will not raise these cutoffs. (This means I can make it easier to earn the letter grades in the categories above, but not harder.)

Grading Schedule

Programming assignments will typically be graded within 6 days of the due date. If exceptions have to be made occasionally, staff will inform the students about the delay and the reason for it. Tests will be graded within 10 days.

Late Work

Anything late will not be graded and you will receive a 0% on that grade item. If you have an extenuating circumstance, you must notify the instructor via email before the deadline.

Regrades

Regrades must be requested within 7 dates of the grade being returned to the student. For everything except tests, students should contact their TA to ask for a regrade. For tests, they should use the Regrade Request tool inside Gradescope. In either case, the student should start by contacting the appropriate person. Afterwards, they are free to contact the instructor if a resolution cannot be found.

Extra Credit

Extra credit will not be available.

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>

Dispute of Grade Policy: Please see the regrade policies outlined above.

Honors Credit

This course will not be available for Honors Credit this semester.

Scheduled Topics/Activities

Below is a tentative schedule for the semester. There may be more than one part for the ICAs (eg. ICA1a and ICA1b for Week1). Exact due dates for the ICAs, Labs, Quizzes will be announced at the start of the semester. PAs will be due Saturdays 11:59 pm every week.

NOTE: The dates may change based on instructor discretion.

Week no.	Week of	Topic/Lectures	Due Dates and Midterm Dates
Week 1	06/09	Strings, Arrays, Lists; Classes	ICA1; Lab1; Quiz1; PA1
Week 2	06/16	ADTs and Interfaces; Recursion	ICA2; Lab2; Quiz2; PA2
Week 3	06/23	Testing; Classes and Inheritance; Objects and Equality	ICA3; Lab3; Quiz3; PA3
Week 4	06/30	Abstract Class, Interfaces, and Polymorphism; Class Hierarchies and UML	ICA4; Lab4; Quiz4; PA4 Midterm 1 (06/30)
Week 5	07/07	Enums, Switch, and Exceptions; Generics	ICA5; Lab5; Quiz5; PA5
Week 6	07/14	Nested Classes, Copy constructors; Primitive-vs-Reference-Types; Complexity	ICA6; Lab6; Quiz6; PA6
Week 7	07/21	Hash Tables	ICA7; Lab7; Quiz7; PA7 Midterm 2 (07/21)
Week 8	07/28	Recursive Backtracking	ICA8; Lab8; Quiz8; PA8
Week 9	08/04	Language Translation and Execution; Refactoring Code	ICA9; Lab9; Quiz9; PA9
Week 10	08/11	Java vs Python	Final Exam (08/13)

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 programming assignments must be done and submitted individually. You may not collaborate with other students on programming assignments or submit work from other sources such as ChatGPT (or any AI), stack overflow, Chegg, GitHub, etc. Failure to abide by this policy may result in no credit for any assignment or exam that was not completed individually and -5 points from the final grade (out of 100 points). Review the materials at this link for the university-wide academic integrity policy:

<https://deanofstudents.arizona.edu/policies/code-academic-integrity>

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/app/me/ledetail;spf-url=common%2Flearningeventdetail%2Fcrty0000000000003841

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

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-and-resources>:

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