

LEC 00

CSE 123

Welcome & Syllabus



Questions during Class?
Raise hand or send here

sli.do #cse123



BEFORE WE START

Talk to your neighbors:
Introduce yourself to your neighbor!

*What is your name? Major? What
have you been up to the past week?*

Instructor: Miya Natsuhara

TAs:

Arohan	Shiven	Yuntong	Anya
Sreshta	Vrinda	Amiya	Anisha
Rushil	Gavin	Sahana	Trien
Sean B	Shreya	Anirudh	Neal
Chloe	Jonah	Rohan	Evan
Jenny	Renee	Crystal	Rena
Nate	Chris	Eeshani	
Saachi	Ishita	Prakshi	
Hawa	Kuhu	Aidan	
Maggie	Kavya	Cora	
Sean E	Misha	Nhan	

Now playing: [CSE 123 26sp Lecture Tunes](#)

Lecture Outline: Introductions

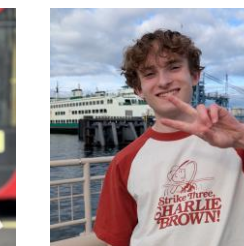
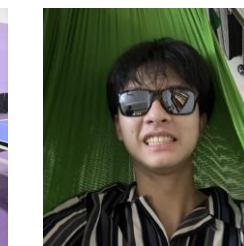
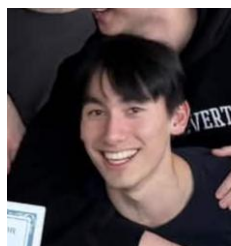
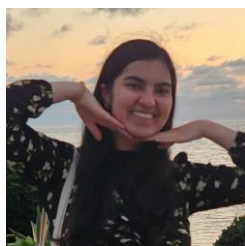
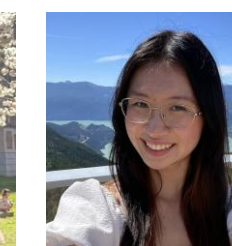
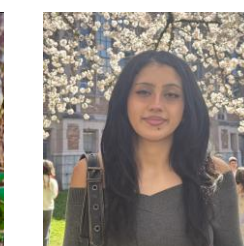
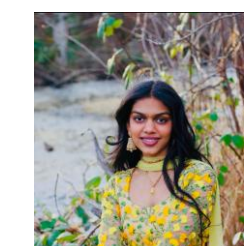
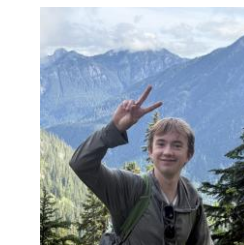
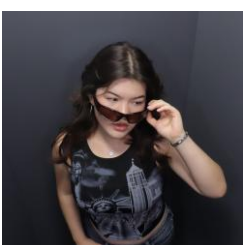
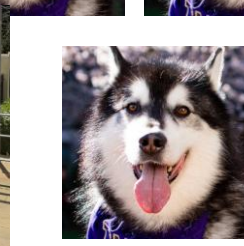
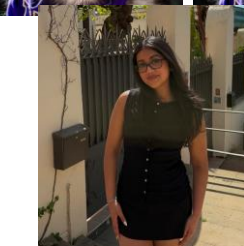
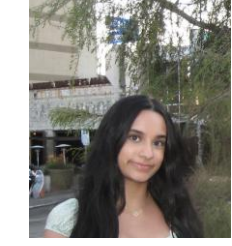
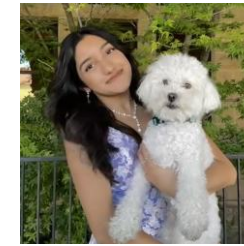
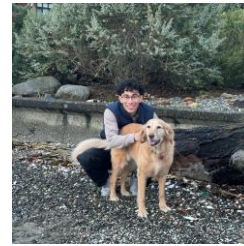
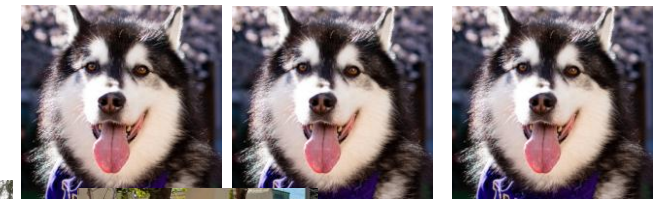
- **Introductions** 
- About this Course
 - Course Components & Tools
 - Making the Most of this Class
- Assignments and Grading

Hi, I'm Miya! (she/her)

- Assistant Teaching Professor
- Frequent intro CS instructor
- Works in areas of CS Education, Accessibility
- Previously:
 - Grew up in Washington state
 - An undergrad and grad student at UW (Math, Computer Science, American Sign Language)
 - A software engineer at Microsoft on the Visual C++ Libraries Team
 - Now in 3rd year as Allen School faculty
- Non-CS hobbies: knitting, baking, playing with my very cute corgi



Meet your 39 fabulous TAs!



Lecture Outline: About this Course

- Introductions
- **About this Course** 
 - Course Components & Tools
 - Making the Most of this Class
- Assignments and Grading

What is this Class?

CSE 121 – Computer Programming I

- Data types (int, String, boolean)
- Methods / Functions
 - Parameters, Returns
- Control structures
 - Loops, Conditionals
- Arrays & 2D arrays
- **Computational Thinking**
(language agnostic)

CSE 122 – Computer Programming II

- Functional Decomposition
- File I/O
- Using data structures
 - List, Stacks / Queues, Sets, Maps
- Object Oriented Programming
 - Interfaces

CSE 123 – Computer Programming III

- Advanced Object Oriented Programming
 - Comparable, Inheritance/Polymorphism, Abstract Classes
- Implementing data structures
 - ArrayLists, LinkedLists, Trees
- Recursion
- Critical analysis of design

Why 123?

1. To solve more complex problems by leveraging more complex programming structures / patterns

2. To better rationalize specific design decisions

- How to “best” structure programs
- Which data structures are “most” appropriate to use

3. To understand and critically analyze intersections between Computer Science and society

- Search engines, algorithmic art, machine learning, etc.
- Developing informed opinions on current issues

Be a better programmer

Be a better person

Prerequisite Knowledge

- Comfort with control structures
 - loops, conditionals, methods/functions
- Experience with using basic data structures
 - arrays, lists, sets, maps
- Experience with console and file input/output
- Exposure to simple object-oriented programming
 - classes, interfaces
- Programming experience *in Java*
 - Or willingness to pick up on your own

Course Expectations

What are you hoping to get out of taking CSE 123?

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Programming Skill

- Fluency with the relevant language and tools
 - consists of *many* conceptually simple facts
 - *e.g.* syntax (of a for loop, method, ...) , how to run a program
 - eventually becomes second nature
- Mental model of how programs execute
 - consists of a few deep concepts
 - *e.g.* what *is* a variable? a loop? a method? a reference?
 - develop the skill of ***tracing*** the current state of a program

Key course takeaway!

Lecture Outline: Course Components & Tools

- Introductions
- About this Course
 - **Course Components & Tools** 
 - Making the Most of this Class
- Assignments and Grading

Course Components

LECTURES

x20

- We're here!
- Introduce concepts, practice ideas, discuss applications.
- Pre-class materials to prepare for class each day. Due **before** class.

SECTIONS

x16

- Held in person
- More practice, reviews, applications
- TA advice, how to be an effective student
- Preparation for quizzes / exams

Meetings

PROGRAMMING ASSIGNMENTS

x4

- Structured assignments
- Programming in Java
- Applying & implementing course concepts

QUIZZES

x3

- Taken in quiz section
- 45 minutes on paper

CREATIVE PROJECTS

x4

- More open-ended assignments
- Explore new ideas and applications

EXAM

x1

- Culminating exam
- **Thurs, June 11th**
- 12:30 – 2:20 PM

Graded Assignments

Course Website

cs.uw.edu/123

Syllabus

Course Information

Teaching Staff
Instructor: Miya Natsuhara
Instructor Email: mnats@cs.washington.edu
Registration Questions: CSE Advisers (ugrad-adviser@cs.washington.edu)
Course Staff and Support Hours: [Course Staff and Office Hours](#)

To ensure the security of your personal information, all communication related to this course should be conducted through either the EdStem platform or via your UW-issued email address. **Personal email addresses should not be used for course-related correspondence.**

▼ Who to contact?
Here are some common types of questions and the best place to ask them to get the fastest and most accurate response.

- **Registration questions?** Email the [CSE advisers](#) as the course staff do not have access to add codes.
- **Questions about course concepts?** Visit office hours in the Introductory Programming Lab (IPL), instructor office hours, or post on the [Ed Discussion board](#) (more info below)
- **Questions about assignments?** Visit office hours in the Introductory Programming Lab (IPL), instructor office hours, or post on the [Ed Discussion board](#) (more info below)

1) **Course Information**
2) **Course Goals**
2.1) Learning Objectives
3) **Software and Textbooks**
4) **Class Sessions and Quiz Sections**
4.1) Class Sessions
4.2) Quiz Sections
5) **Required Course Work**
5.1) Types of Assignments
5.2) Resubmissions
5.3) Ignored Problems (Quizzes/Exam)
5.4) Late or Missed Work
6) **Course Climate**
6.1) Inclusion
6.2) Extenuating Circumstances: "Don't Suffer in Silence"
6.3) Disabilities
6.4) Religious

Review the syllabus!

CSE 123

Home / Calendar

- Syllabus
- Assignments
- Resubmissions
- Grading Rubrics
- Exam
- Getting Help
- Staff
- Resources

- Course Tools
- Software Setup
- EdStem
- Anonymous Feedback
- Code Quality Guide
- Commenting Guide

cs.uw.edu/courses/cse123/26sp/

Attention! This website is still **under development**. More information will be added soon and all content is subject to change.

Introduction to Computer Programming III
Spring 2026

Welcome to CSE 123: Introduction to Computer Programming III 🎉

► What is this class? What will I learn?

This Week (at a glance)

Monday (03/30)

- Nothing!

Tuesday (03/31)

- No section today!

Wednesday (04/01)

- *No PCM for today!*
- 🗓️ Lesson 0: Welcome; Syllabus Meet in ARC 147 @ 12:30 (A lecture) or GUG 220 @ 3:30 (B lecture)

Thursday (04/02)

- 🗓️ Section 0: Welcome & Software Setup
- 🗓️ C0 - Warm Up released. Due Wednesday (04/08) @ 11:59PM PT.

Friday (04/03)

- 🗓️ Pre-Class Material 1 (Complete before class.)
- 🗓️ Lesson 1: Comparable; Inheritance Meet in ARC 147 @ 12:30 (A lecture) or GUG 220 @ 3:30 (B lecture)

Contains most course info – check frequently!
Announcements, Calendar, Lecture Slides, Office Hours schedule,
Staff Bios, Important Links

Other Course Tools



Ed

- Community & Information
 - Discussion Board
(please ask & answer!; anonymous option)
 - Announcements
- Pre-Class Materials / Section Handouts
- Assignments
 - Online IDE
 - Submit assignments
 - View Feedback

My Digital Hand



My Digital Hand

- Queueing in office hours

VSCode

- Develop offline
- Visual debugger



Gradescope


- Quiz and final exam grades



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- In-class activities
(ungraded)

Lecture Outline: Making the Most of this Class

- Introductions
- About this Course
 - Course Components & Tools
 - **Making the Most of this Class** 
- Assignments and Grading



Digression: A Pandemic Hobby

Amigurumi: Japanese art of creating crocheted or knitted stuffed toys



How Learning Works

- Learning requires **active participation** in the process. It's not as simple as sitting and listening to someone talk at you.
 - Requires **deliberate practice** in **learning by doing**
 - Benefits from **collaborative learning**
- Hybrid classroom model
 - Asks you to do some preparation before class in the form of readings and practice problems.
 - Should take ~30 minutes outside of class per lesson
 - Class will start with brief recap, then pick up where the reading and practice problems leave off.
 - Attendance isn't graded, but showing up and trying is the first step in succeeding in the class!
- Pre-class materials are ungraded, but...
 - It's okay if you find them challenging! That means you are learning!



Learning Pattern

- Pre-class Work
 - Your first introduction to a topic
 - Interactive components
 - In-class lessons
 - Recap of pre-class work
 - Further instruction from where it left off
 - Interactive components
 - Section
 - Review, restate, rephrase content
 - Very interactive
 - Homework
 - Learn by applying
 - Help when you need it!
 - Quizzes/Final Exam
 - Show us what you've learned
- Instruction
- Practice
- Instruction
- Practice
- Instruction
- Practice
- Practice/Assessment
- Instruction
- Assessment

Learning in CSE 123: Live Support Systems

Programming is hard! We **want** to give you collaborative support!

Introductory Programming Lab (TA Office Hours) – starting Week 2

- > 40 hours/week (and highly rated in the class!)
- Face-to-face help from TAs on **any** course questions

Instructor Office Hours

- Great for things from lecture, personal questions, or just saying hi

Learning in CSE 123: Async Support Systems

Ed Board

- Best for content and logistics questions – 395 of you >> 40 of us!!
- Encourage public posts, except for things about **your** graded work
- Answer other students' questions – great way to learn!

Email

- Best for personal circumstances and/or private questions
- If unsure, always feel free to email Miya
 - May politely ask you to post on Ed instead!
- For emails, **please use your UW email** (protecting student privacy!)

The World Around Us

College is challenging and CSE 123 isn't your only class.

Life is unpredictable and things happen.

We can't leave the impacts of the world around us at the classroom door.

OUR POLICIES

Our course policies are **designed for flexibility**:

- Resubmissions
- Dropping quiz/exam problems
- Asynchronous help
- Lecture recordings

SUPPORT

We're here to **support you as a student and as a person**.

Please **reach out** if you're struggling or have circumstances that require extra support.



Practice: Pair

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#cse123

Think-Pair-Share: Inclusive Environments

CSE 123 will have many think-pair-share activities. Let's practice! Today's think:

What was an experience you had that made you feel welcome or included in a learning environment?

1. **Think** on your own, in silence for about ~ 30 seconds
2. **Pair** with your neighbor about it (and introduce yourself!!)
3. **Share** in sli.do and in class (I'll take a few volunteers from both)



Practice: Pair



sli.do

#cse123

Think-Pair-Share: *Exclusive* Environments

CSE 123 will have many think-pair-share activities. Let's practice! Today's think:

What was an experience you had that made you feel unwelcome or excluded in a learning environment?

1. **Think** on your own, in silence for about ~ 30 seconds
2. **Pair** with your neighbor about it (and introduce yourself!!)
3. **Share** in sli.do and in class (I'll take a few volunteers from both)

Lecture Outline: Assignments and Grading

- Introductions
- About this Course
 - Course Components & Tools
 - Making the Most of this Class
- **Assignments and Grading** ◀

Assignments and Grading

- Our goal in the course is for you to **gain proficiency the concepts and skills** we teach
- We assess your proficiency by asking you to apply the concepts and skills on tasks or problems
- By necessity, we are assessing your *work* as a proxy for your proficiency

Assignments

- Your learning in this course will be assessed in four ways:
 - Programming Assignments (~biweekly, 4 total)
 - Structured programming assignments to assess your proficiency of programming concepts
 - Creative Projects (~biweekly, 4 total)
 - Smaller, more open-ended assignments to give you space to explore
 - Quizzes (3 total, in section)
 - Series of problems covering all material up to that point
 - Final Exam (Tuesday, March 17, 12:30-2:20)
 - Final, culminating assessment of all your skills and knowledge

Resubmission and Ignored Quiz Problems

Learning takes time, and doesn't always happen on the first try

- One previous Programming Assignment or Creative Project can be **resubmitted** each week
 - Must be accompanied by a write-up describing changes (via Google Form)
 - Grade on resubmission will replace original grade
 - An assignment can be resubmitted in the 3 cycles after feedback has been published
 - *Tip: Resubmit as early as possible!*
- We will ignore your **two lowest quiz/exam problem grades**
 - No special action required— we'll do this automatically
- See the [syllabus](#) for more details

Grading

Grades should reflect your proficiency in the course objectives

- All assignments will be graded **E (Excellent)**, **S (Satisfactory)**, or **N (Not yet)**
 - Under certain circumstances, a grade of U (Unassessable) may be assigned
- Final grades will be assigned based on the **amount of work at each level**
- See the [syllabus](#) for more details

Collaboration Policy

- When we assess your work in this class, we need to know that it's *yours*.
- Unless otherwise specified, **all graded work must be completed individually and without touching AI tools.**

Some specific rules to highlight:

- do not share your own solution code or view solution code from any source – including but not limited to other students, tutors, or the internet
- do not use AI tools (e.g. ChatGPT) to create graded work

See the [syllabus](#) for more details (this is *very* important to understand).

AI and CSE 123: Our Philosophy

Computing applications enabled by **artificial intelligence (AI)** are increasingly common and more widely used for a variety of tasks.

It is becoming more difficult to teach an introductory computing course without acknowledging the **existence of AI tools**.

But as relatively new programmers, **you still need to learn and practice effectively using core programming ‘building blocks’**.

CSE 123 AI Policy

No part of any graded work may touch an AI tool.

You may not copy and paste any work generated by AI into any graded submission, nor may you copy and paste any work from or for a graded assignment into an AI tool. All other uses of AI on graded work must be cited.

CSE 123 AI Policy Examples

No part of any graded work may touch an AI tool.

You may not copy and paste any work generated by AI into any graded submission, nor may you copy and paste any work from or for a graded assignment into an AI tool. All other uses of AI on graded work must be cited.




ALLOWED

- Asking AI to **explain an error message**
- Asking AI to **explain the functionality of non-graded code** snippets
- Asking AI to **suggest additional information** or resources

PROHIBITED

- **Generating code, comments, reflections**
- Using AI to **'solve' an assignment**
- Using AI to **write, modify, or extend** reflections, code, comments, etc.

Coming up...

-  Go to your first quiz section and meet your TAs tomorrow!
 - Make sure to double check [MyUW](#) for the location.
-  Complete Pre-Class Work 1 before class on Friday!
 - It will be posted and linked from the course calendar later today.
-  Complete the [Introductory Survey](#)
 - This helps us gather data about the students taking our classes and their backgrounds, to inform future offerings.