#### **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?

#### Instructors: Brett Wortzman Miya Natsuhara

TAs:	Arohan	Neha	Rushil	Johnathan	Nicholas
	Sean	Hayden	Srihari	Benoit	Isayiah
	Audrey	Chris	Andras	Jessica	Kavya
	Cynthia	Shreya	Kieran	Rohan	Eeshani
	Amy	Packard	Cora	Dixon	Nichole
	Trien	Lawrence	Liza	Helena	

#### Music: CSE 123 25wi Lecture Tunes

LEC 00

# cse 123 Welcome & Syllabus

Questions during Class? Raise hand or send here

#cse123

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### **Lecture Outline**

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

### **Course Staff**

- Instructors: Brett Wortzman Miya Natsuhara
- Teaching Assistants: 29 Fantastic TAs!
  - Available in section, office hours, and discussion board
  - Invaluable source of information & help in this course
- We're excited to get to know you!
  - Our goal is to help you succeed  $\ensuremath{\textcircled{\odot}}$







# 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

### What do you want to get out of this course?



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### **Course Website**

### <u>cs.uw.edu/123</u>

Syllabus         Course Information         10 curse Information         2 caching Staff         10 curse Information         10 curse Information         10 curse Information         10 curse Information         10 curse Staff and Support Hours: Course Staff and Office Hours         10 curse Information         1			CSE 123	Attention! This website is still under development. More information will be added soon and all content is subject to change.
Announcements This Week (at a glance)	Syllabus Course Information Teaching Staff Instructor: Brett Wortzman & Miya Natsuhara Instructor: Brett Wortzman & Miya Natsuhara Instructor Email: cse123-instructors@cs.washington.edu Registration Questions: CSE Advisers (ugrad-adviser@cs.washington.edu) Course Staff and Support Hours: Course Staff and Office Hours V 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. Ourse times about course concente? Visit office hours in the Introductory	<ol> <li>Course Information</li> <li>Course Goals</li> <li>Learning Objectives</li> <li>Software and Textbooks</li> <li>Class Sessions and Quiz Sections</li> <li>Class Sessions</li> <li>Class Sessions</li> <li>Dicluss Cections</li> <li>Inclusion</li> <li>Required Course Work</li> <li>Types of Assignments</li> <li>Late Work</li> <li>Course Support Structures</li> </ol>	Home / Calendar Syllabus Assignments Exam Staff Office Hours COVID-19 Safety Resources Course Tools C <sup>a</sup> EdStem Anonymous Feedback Grade Checker	Introduction to Computer Programming Winter 2025 Welcome to CSE 123: Introduction to Computer Programming III What is this class? What will I learn? Prior Experience and Expectations Syllabus If you want to learn more about the course and its policies, please check out our course syllabus. Feedback Feedback is always welcome! You can contact the the course staff or submit anonymous feedback. Registration Please do not email the course staff or instructors regarding registration for the course. The course staff do not have access to add codes. Please email ugrad- adviser@cs.washington.edu for assistance.
				Announcements This Week (at a glance)

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

Nothing!

# **Creating an inclusive environment**



- This is a more professional environment than hanging out with friends
- Think about the impact your words can have.
- Collaboration, Support, and Empathy
- Check your own biases and communicate thoughtfully
- Challenge unacceptable behaviors

### **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

• Queueing in office hours



#### VSCode

- Develop offline
- Visual debugger



#### Canvas

• Lecture recordings



#### Sli.do

- In-class activities (ungraded)
- No account needed

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# **Digression: Brett's 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!



# **Getting Help**

- Discussion Board
  - Feel free to make a public or private post on Ed
  - We encourage you to answer other peoples' questions! A great way to learn
- Introductory Programming Lab (Office Hours)
  - TAs can help you face to face in office hours, and look at your code
  - You can go to the IPL with **any** course questions, not just assignments
- Section
  - Work through related problems, get to know your TA who is here to support you
- Your Peers
  - We encourage you to form study groups! Discord or Ed are great places to do that
- Email
  - We prefer that all content and logistic questions go on the Ed discussion board (even if you make them private). Many more students than staff!
  - For serious personal circumstances, you can email Miya/Brett directly. It never hurts to email us, but if it's a common logistic question, we may politely ask you to post on the discussion board instead.

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# **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 18)
    - 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 problem grades** 
  - No special action required—we'll do this automatically
- See the <u>syllabus</u> 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 <u>syllabus</u> 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.

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) on graded work in any capacity

See the <u>syllabus</u> for more details (this is *very* important to understand).

# Coming up...

- 😰 Go to your first quiz section and meet your TAs tomorrow!
  - Make sure to double check <u>MyUW</u> for the location.
- E Complete Pre-Class Work 1 before class on Friday!
  - It will be posted and linked from the course calendar later today.
- ? Complete the <u>Introductory Survey</u>
  - This helps us gather data about the students taking our classes and their backgrounds, to inform future offerings.
- 😨 Consider attending the Review Session on Monday, Jan 13
  - 12:30pm 1:20pm in ARC 147 ; 2:30pm 3:20pm in GUG 220
  - Optional, hopefully recorded (waiting for confirmation)