Welcome to CSE 121!

Miya Natsuhara
Spring 2023

Music: 121 23sp Lecture Vibes 🌸

TAs: Jasmine  Atharva  Mia  Justin
     Shananda  Julia  Archit  Aishah
     Vidhi  Anju  Grace  Claire
     Larry  Lydia  Kailye  Lydia
     Jacqueline  Jonus  Joshua  Kai
     Afifah  Hugh  James

sli.do #cse121
Agenda

• About me
• About this course
  • Learning objectives
  • Other similar courses
  • Course components
• Our learning model

• Tools and resources
  • Course Website
  • Ed
• Assessment and grading
• Collaboration
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Hi, I’m Miya! (she/her)

• Lecturer in the Allen School
  • (soon to be Assistant Teaching Professor)
• UW CSE alum
  • BS in CSE
  • BA in Math
  • Minor in ASL
  • MS in CSE
• Former Software Engineer at Microsoft
• Dog mom
Meet your 23 TAs!
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Learning Objectives

or, “What will I learn in this class?”

• **Functionality/Behavior:** Write functionally correct Java programs that meet a provided specification and/or solve a specified problem

• **Functional Decomposition:** Break down problems into subproblems that are modular and reusable, and define methods to represent those subproblems

• **Control Structures:** Select and apply control structures (e.g. methods, loops, conditionals) to manage the flow of control and information in programs

• **Data Abstraction:** Select and apply basic data abstractions (e.g. variables, parameters, arrays, classes) to manage and manipulate data in programs

• **Code Quality:** Define programs that are well-written, readable, maintainable, and conform to established standards
## Other Similar Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Good choice if…</th>
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</table>
| CSE 121 | • You’ve never programmed before AND  
               • You are, or want to be, in a major such as CS, CE, ECE, Info, etc. that requires Java programming                                                                                          |
| CSE 122 | • You’ve done some programming (roughly one course worth) in any programming language AND  
               • You are, or want to be, in a major such as CS, CE, ECE, Info, etc. that requires Java programming                                                   |
| CSE 123 | • You’ve taken CSE 122 AND  
               • You are, or want to be, in a major such as CS, CE, ECE, Info, etc. that requires Java programming                                                                 |
| CSE 160 | • You’ve never programmed before AND  
               • You’re interested in data science and analysis OR  
               • You’d rather learn Python than Java* OR  
               • You are, or want to be, in a major such as Physics, Bio, Stat, etc. where analyzing data through programming is useful                           |

*Other courses of interest: CSE 154, CSE 163*

See [Guided Self-Placement](#) and [Introductory Courses](#) for more info
Course Components

Meetings

**LECTURES** (x20)
- We’re here!
- Introduce concepts, practice ideas, discuss applications.
- Pre-class materials to prepare for class each day. Due before class.

**SECTIONS** (x18)
- Held in person
- More practice, reviews, applications
- TA advice, how to be an effective student
- Preparation for quizzes / exams

Assessments

**PROGRAMMING ASSIGNMENTS** (x4)
- Structured assignments
- Programming in Java
- Applying & implementing course concepts

**CREATIVE PROJECTS** (x4)
- More open-ended assignments
- Explore new ideas and applications

**QUIZZES** (x3)
- Taken in quiz section
- 45 minutes on computer
- One retake per quiz

**EXAM** (x1)
- Culminating exam
- Thursday, June 8 2:30pm-4:20pm tentatively
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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 a day
  • 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!
Metacognition

- **Metacognition**: asking questions about your solution process.

- Examples:
  - **While debugging**: explain to yourself why you’re making this change to your program.
  - **Before running your program**: make an explicit prediction of what you expect to see.
  - **When coding**: be aware when you’re not making progress, so you can take a break or try a different strategy.
  - **When designing**:
    - Explain the tradeoffs with using a different data structure or algorithm.
    - If one or more requirements change, how would the solution change as a result?
    - Reflect on how you ruled out alternative ideas along the way to a solution.
  - **When studying**: what is the relationship of this topic to other ideas in the course?
Learning in CSE 121 (or anywhere)

1. **Exposure**
   - Lessons, videos, textbook
   - Encounter concepts for the first time. See examples and ask questions. Nowhere near mastery!

2. **Guided Practice**
   - Lesson activities, sections, labs
   - Practice with support from course staff. Learn by doing: make mistakes and learn from them. Start to develop mastery.

3. **Independent/Group Practice**
   - Checkpoints, section problems, additional practice
   - Practice on your own or with classmates. Continue to learn by doing. Get close to mastery.

4. **Assessment**
   - Take-home assessments
   - Build on the scaffolding from 1-3. Still learning by doing; you’re not done! Demonstrate your mastery (even if it’s still developing).
Course Culture and Support

• Currently 400 students enrolled!
  • Wide range of backgrounds, interests, and goals
  • Everyone is new to programming
• Support and help each other!
  • Form study groups
  • If you have a question, others almost certainly do too
Course Culture and Support: 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

• Email
  • We prefer that all content and logistic questions go on the Ed discussion board (even if you make them private). 400 of you >>> 24 of us!
  • For serious personal circumstances, you can email Miya directly. It never hurts to email me, but if it’s a common logistic question, I may politely ask you to post on the discussion board.
Course Culture and Support

• Policies designed with flexibility in mind
  • Resubmissions/Retakes, lecture recordings

• But life and the world still happen...

• **Please reach out ASAP if you’re struggling or have circumstances that require extra support**
The World Around CSE 121

• Our goal is to give you a great CSE 121 experience
  • But CSE 121 does not exist in a vacuum – there’s a lot going on in the world right now that can impact your education
• We’ve designed course policies for maximum flexibility: ability to resubmit assignments and retake quizzes
  • But we cannot cover every individual situation

• Please reach out if you need accommodations of any kind to deal with these unfamiliar situations
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Course Website

- Primary source of course information (not Canvas)
- Calendar will contain links to (almost) all resources
Course Website

Please review the syllabus ASAP.

Syllabus

Course Information

Teaching Staff
Instructor: Miya Natsuhara
Instructor Email: mna@cs.washington.edu

Registration Questions: CSE Advisors (ugrad-advisor@cs.washington.edu)

Course Staff and Support Hours: Course Staff and Office Hours

Who to contact?

Class Session Meeting
See Class Sessions for information on how each day of class will be run.
WF: 3:30 pm - 4:20 pm (KNE 120)

Other Info
Course Website: Here! (https://courses.cs.washington.edu/courses/cse121v23sp or...
Ed

• Our online learning platform
• Lessons, sections, quizzes all here
• Intro and walkthrough in Section 0
Other Course Tools

**My Digital Hand**
- Queueing in office hours

**IntelliJ**
- Develop offline
- Visual debugger

**Canvas**
- Gradebook
- Lecture recordings

**Sli.do**
- In-class activities (ungraded)
- No account needed
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Assessment and Grading

• Our goal in the course is for you to gain proficiency of 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
Resubmission/Retakes

*Learning takes time, and doesn’t always happen on the first try!*

- Each week, one previous Programming Assignment or Creative Project can be resubmitted
  - Must be accompanied by write up explaining changes.
  - Grade on resubmission replaces original grade.
  - An assignment is only eligible for resubmission within 3 weeks of its original due date.
- Each quiz can be retaken at most once
  - A quiz is only eligible for retake within 3 weeks of its original date.

See [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
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Collaboration Policy

*Learning is hard, but it’s easier when you learn from each other*

- You are encouraged to form study groups, work together on practice and review, and discuss your ideas and approaches **at a high level**
  - In general, share ideas and work together, but don’t copy work. Never send someone else your code or solution write up.
- If you discuss your ideas with others, you must **cite them**
- All work you submit for grading **must be predominantly and substantially your own**
  - **Withdrawal policy**

- See the [syllabus](#) for more details
Help Us Improve!

• CSE 121 is super new!
• We worked hard to build a course we think will be effective and supportive and help you succeed
• We probably didn’t get it all right

• We appreciate your patience and understanding if we need to make adjustments during the quarter
• Please give us lots of feedback!
  • Post on Ed and/or use the Anonymous Feedback Tool
“Homework” for Next Time

- First assignment will be released Friday, but there are some things to do in the mean time.

- TODO this week
  - Fill out the introductory survey
  - Post an introduction video on your section’s Ed thread! 😊
  - Go meet your TA and classmates in Thursday’s quiz section
  - ★ Complete the pre-class material for Friday (see calendar)
  - Check over syllabus details