Welcome to CSE 121!

Kai Daniels
Summer 2023

Music: k-pop girlies playlist

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 Kai! (he/they)

• Part-Time Lecturer for the Allen School
• UW CSE alum
  • BS in CSE
  • Minor in INFO
• Incoming Software Engineer at Microsoft
• I have two cats
My two cats:
My two cats:
My two cats:
Meet your 10 TAs!
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How to use sli.do?

1. Scan the QR Code with your phone or go to https://app.sli.do/event/uiggNa1276YjTX6oEM3qSV
   (link will change for future lectures)
2. Ask a question!
3. There will also be polls and questions I may ask here
Go ahead and ask a question!

sli.do #cse121
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>
</tr>
</thead>
</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** (x15)

- We’re here!
- Introduce concepts, practice ideas, discuss applications.
- Pre-class materials to prepare for class each day. Due **before** class.
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**SECTIONS** (x15)
- Held in person
- More practice, reviews, applications
- TA advice, how to be an effective student
- Preparation for quizzes / exams
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- PROGRAMMING ASSIGNMENTS (x4)
  - Structured assignments
  - Programming in Java
  - Applying & implementing course concepts
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- More open-ended assignments
- Explore new ideas and applications
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**QUIZZES** (x3)
- Take home quizzes
- No retakes
- Added infrastructure
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**EXAM** (x1)
- Culminating exam
- Date TBD (most likely last week)
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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**
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• Hybrid classroom model
  • Asks you to do some preparation before class in the form of readings and practice problems.
    • Should take ~20 minutes a day
  • Class will start with brief recap, then pick up where the reading and practice problems leave off.
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• Pre-class materials and attendance 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)

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

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

**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.

**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 around 70 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
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  • TAs can help you face to face in office hours, and look at your code
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- Section
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• Email
  • We prefer that all content and logistic questions go on the Ed discussion board (even if you make them private). ~100 of you >>> 10 of us!
  • For serious personal circumstances, you can email Kai directly. It never hurts to email me, but if it’s a common logistic question, I may 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 take home 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

cs.uw.edu/121

• 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 Natashara

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

Course Staff and Support Hours: Course Staff and Office Hours

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 128)

Other Info

- Course Website: Here! ([https://courses.cs.washington.edu/courses/cse121/23sp](https://courses.cs.washington.edu/courses/cse121/23sp))
Ed

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

Welcome to CSE 121! 🐭 #2

Hi team!

Welcome to CSE 121! 🐭 I’m Mya NatsuHara, and I will be your instructor this quarter. I am really excited to be working with you this quarter on this exciting journey in our new course CSE 121!

I hope you all managed to stay safe and healthy and had an enjoyable winter break. You’re receiving this email on our Ed Discussion board, which will be one of the main places for you to connect with your classmates and the course staff. Please see my post #1 for more information on how to use Ed Discussion.

Resources

In CSE 121 we will use the course website for all information about the course. You can find the course website here (short URL: http://cs.washington.edu/121). The course website will be the main place for you to see updates and find information about our course. This includes the syllabus, the lecture calendar, and information about our COVID-19 safety policies. There is a lot there, so we will spend most of the first day of class talking about the class and its structure. The course website will be your main place to find new links to lessons, assignments, and other course resources.
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.

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
To Ed!

• Let’s write our first lines of code
“Homework” for Next Time

• First assignment will be released today - but I don’t expect you to be able to finish it all

• TODO this week
  • Get started on C0 (your first assignment)
  • Go meet your TA and classmates in Thursday’s quiz section
  • ⭐ Complete the pre-class material for Friday (see calendar)
  • Read over the Syllabus on the Website