Welcome to CSE 121!

Elba Garza & Matt Wang

Winter 2024

TAs:  Abby     Aishah     Anju     Annie     Archit     Ayesha     Christian
      Hannah    Heather    Hibbah   Jacob     James      Janvi      Jasmine
      Jonus     Julia      Lucas     Luke      Maria      Nicole     Shananda
      Shayna    Trey       Vidhi     Vivian

Today’s song: Daft Punk’s Da Funk

sli.do #cse121-0
Agenda (1/7)

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

• Tools and resources
  • Course Website
  • Ed
• Assessment and grading
• Collaboration
Agenda (2/7)

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Hi, I’m Elba! (she/her)

- Assistant Teaching Professor in the Allen School
- Originally from Guadalajara, Mexico and raised in San Antonio, Texas
- Education:
  - BS Columbia University
  - MSc Princeton University
  - PhD Texas A&M University
- Area of Specialization: Computer Architecture
- Out of school: Metal detecting, F1, coin collecting, movies
and I’m Matt! (he/him)

• (new) Assistant Teaching Professor in the Allen School
• grew up mostly in Toronto and sometimes Tokyo!
• went to UCLA!
  • BS & MS in Computer Science
  • BS in Math-Economics
• computer science interests: CS education, “open-source”, programming languages, accessibility
• non-CS interests: reading, music (Laufey was my #1 this wrapped), video games, skiing & ice skating!
Meet your 25 TAs!
Agenda (3/7)

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Learning Objectives

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

• Computational Thinking
• Code Comprehension
• Code Writing
• Communication
• Testing
• Debugging
• Ethics & Societal Impact
## 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

<table>
<thead>
<tr>
<th>Lectures</th>
<th>(x20)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• We’re here!</td>
<td></td>
</tr>
<tr>
<td>• Introduce concepts, practice ideas, discuss applications.</td>
<td></td>
</tr>
<tr>
<td>• Pre-class materials to prepare for class each day. Due <strong>before</strong> class.</td>
<td></td>
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</tbody>
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<table>
<thead>
<tr>
<th>Sections</th>
<th>(x16)</th>
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</thead>
<tbody>
<tr>
<td>• Held in person</td>
<td></td>
</tr>
<tr>
<td>• More practice, review, applications</td>
<td></td>
</tr>
<tr>
<td>• TA advice, how to be an effective student</td>
<td></td>
</tr>
<tr>
<td>• Preparation for quizzes / exams</td>
<td></td>
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</tbody>
</table>

### Assessments

<table>
<thead>
<tr>
<th>Programming Assignments</th>
<th>(x4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Structured assignments</td>
<td></td>
</tr>
<tr>
<td>• Programming in Java</td>
<td></td>
</tr>
<tr>
<td>• Applying &amp; implementing course concepts</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Creative Projects</th>
<th>(x4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• More open-ended assignments</td>
<td></td>
</tr>
<tr>
<td>• Explore new ideas and applications</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quizzes</th>
<th>(x3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Taken in quiz section</td>
<td></td>
</tr>
<tr>
<td>• 45 minutes on computer</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Exam</th>
<th>(x1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Culminating exam</td>
<td></td>
</tr>
<tr>
<td>• <strong>Tue March 12th</strong>, 12:30-2:20 PM</td>
<td></td>
</tr>
</tbody>
</table>

**Lesson 0 - Winter 2024**
Agenda (4/7)

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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**
- **Does not work well if you cram everything!**
Pre-Class Materials (1/3)

Core element of course: **pre-class material**

- prepare for each lecture with readings & practice problems
- should take ~30 minutes per lecture (why we don’t have Monday lectures!)
- class will start with a brief recap, then pick off where we left off
Pre-Class Materials (2/3)

Core element of course: **pre-class material**

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Which means...

- we can spend lecture diving deeper, answering questions, and think-pair-share
- you can ask about pre-lecture material in class or quiz section!
Pre-Class Materials (3/3)

Core element of course: **pre-class material**
- prepare for each lecture with readings & practice problems
- should take ~30 minutes per lecture (why we don’t have Monday lectures!)
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Which means...
- we can spend lecture diving deeper, answering questions, and think-pair-share
- you can ask about pre-lecture material in class or quiz section!

Pre-class materials are ungraded, which means...
- it’s okay if you find them challenging – that means you’re learning!
- but, you should do them, and we will assume you’ve done them
Consistent and Active Participation (1/2)

Attendance is not graded. But, it’s strongly encouraged!

• lectures & sections are **not** going to be just us talking at you!

• ex: live in-class coding, debugging, think-pair-share, and problem-solving

• spreading out ~ 1-2 hours each day over Tuesday – Friday is **much more effective** than cramming before the assignment is due!
Consistent and Active Participation (2/2)

Attendance is not graded. But, it’s strongly encouraged!

• lectures & sections are **not** going to be just us talking at you!

• ex: live in-class coding, debugging, think-pair-share, and problem-solving

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Catching up:

• all lectures (A & B sections) are recorded on Panopto; slides are on our website.

• section materials are on Ed, but section will not be recorded.
Metacognition

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

- Examples:
  - **While debugging**: explain to yourself why you’re trying this change.
  - **Before running your program**: make an explicit prediction of what you expect.
  - **When working**: 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)
Course Culture and Support

• Currently 444 students enrolled!
  • *Almost none* are CSE majors!
  • 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
Course Culture and Support: Email

• Email
  • We prefer that all content and logistic questions go on the Ed discussion board (even if you make them private). 444 of you >>> 27 of us!
  • For serious personal circumstances, you can email Elba & Matt directly at cse121-instructors@cs.washington.edu. 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.
Course Culture and Support: Reaching Out

• Policies designed with flexibility in mind
  • Resubmissions, lecture recordings, asynchronous discussion board

• But, life and the world still happen around us...

• 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 “drop” some quiz/final problems
  • 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
Syllabus (website)

Please review the syllabus ASAP.
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

**Visual Studio Code**
- Not strictly necessary!
- Develop offline
- Debugger Tool

**Canvas**
- 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

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 the 3 resubmission cycles following its grades being released.
- Your lowest 2 quiz problem grades will be dropped from your gradebook (not considered when calculating course grades)

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**
  - There is a dedicated page explaining the policy around use of generative AI tools
- **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 meantime.

• TODOs this week:
  • Fill out the introductory survey
  • Go meet your TA and classmates in Thursday’s quiz section
  • Complete the pre-class material for Friday (see calendar)
  • Check over syllabus details