Welcome to CSE 142!

Miya Natsuhara Spring 2021

Please make sure your microphone is muted.

If you're willing, turn on your video so we can see you!

- About us
- What is Computer Science?
- About this course
 - Learning objectives
 - Other similar courses
 - Course components
- Our learning model

(Wed)

- Tools and resources
 - Course Website
 - Zoom
 - Ed
 - PollEverywhere
 - Discord
- Assessment and grading
- Collaboration

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

- Instructional Lecturer
- Full-time Software Engineer at Microsoft
- B.A. in Mathematics and B.S. in Computer Science, Masters degree in Computer Science from UW
- Previously...
 - Frequent TA and Head TA for CSE 142
 - Lecturer for CSE 142 as a grad student



Meet your TAs













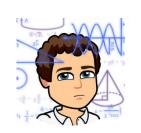






























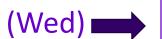






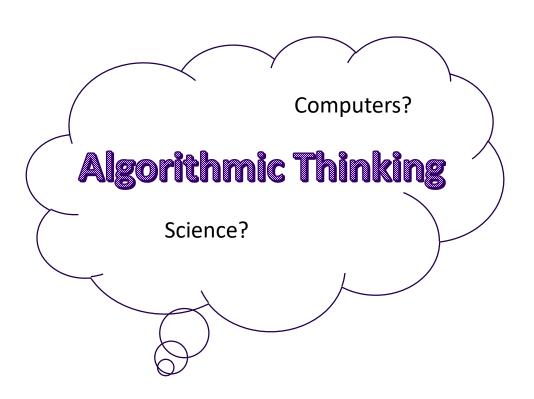


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What is Computer Science?



Algorithm:

a step-by-step procedure for solving a problem or accomplishing some end especially by a computer

Programming is like a building block

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

Course	Good choice if
CSE 142	 You've never programmed before OR You've done a little programming but feel rusty or not confident AND You are, or want to be, in a major such as CS, CE, EE, Info, etc. that requires Java programming
CSE 143	 You've programming in Java before OR You took AP CS A or IB CS in high school
CSE 143X	 You've programmed a lot before in a language other than Java OR You are confident you can pick up new concepts very quickly OR You really, really need to get through two courses in one quarter
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

Course Components

Lessons (aka Lectures)

- MWF, 8:30am PDT
- Held live via Zoom; recordings released after
- First introductions to course concepts
- Mix of presentation of content and practice activities/problems
- Some required pre-work

Sections

- Th, various times
- Led by TAs
- Held live via Zoom; not recorded
 - Short videos will be released on occasion when important material is covered
- Additional review, discussion, and practice
- Mostly practice problems

Attendance is not taken, but you are responsible for all material (including announcements).

Course Components

Labs (optional)

- T, various times
- Problems released online, support from TAs over Zoom
- CSE 190 sections H through R
- 1 credit course
- Credit/No Credit grading

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Learning in CSE 142 (or anywhere)

Independent/Group Practice

Checkpoints, section problems, additional practice

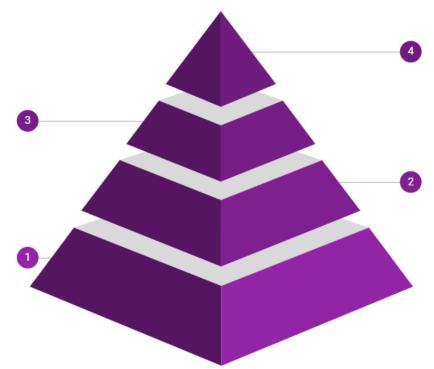
Practice on your own or with classmates.

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!



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).

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.

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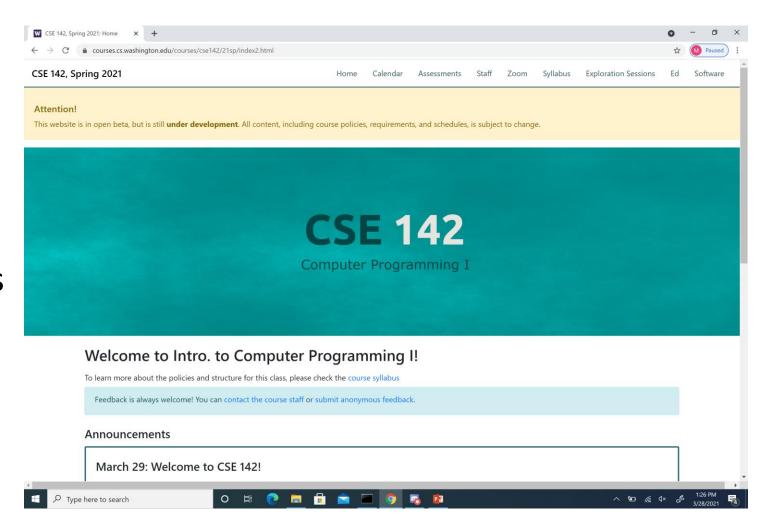
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Course Website

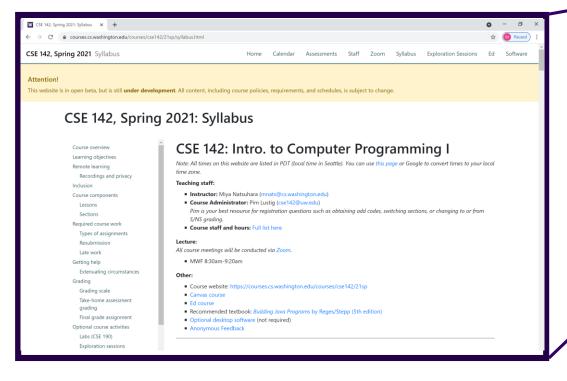
cs.uw.edu/142

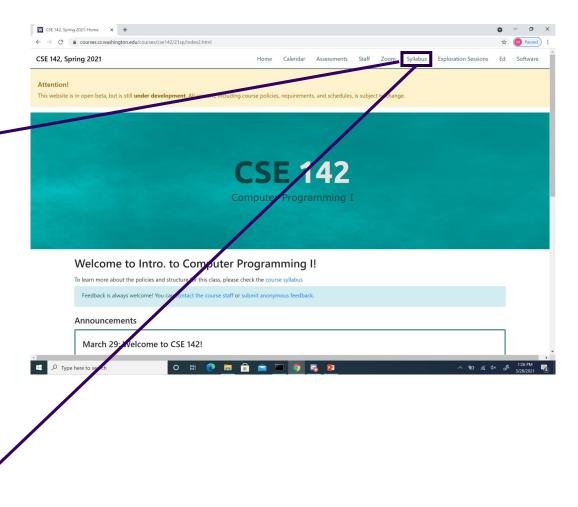
- Primary source of course information (not Canvas)
- Calendar will contain links to (almost) all resources



Course Website

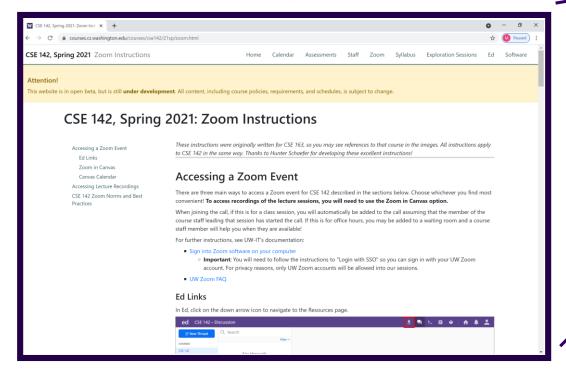
Please review the syllabus ASAP.

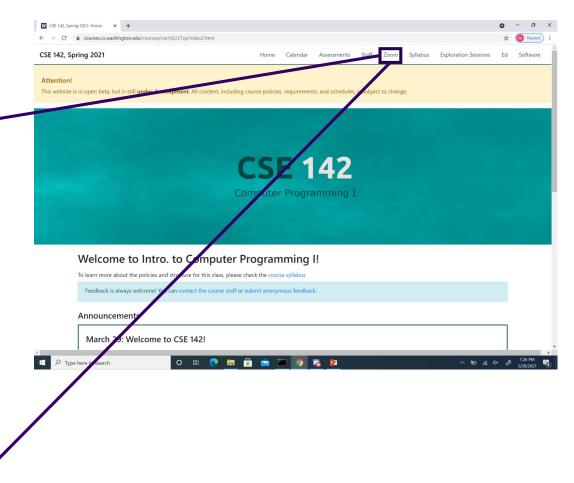




Course Website

Make sure you're aware of Zoom norms.





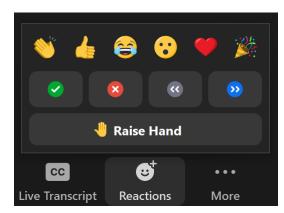
Zoom

- Keep your microphone muted until called on
- Use the "Raise Hand" button to ask to speak



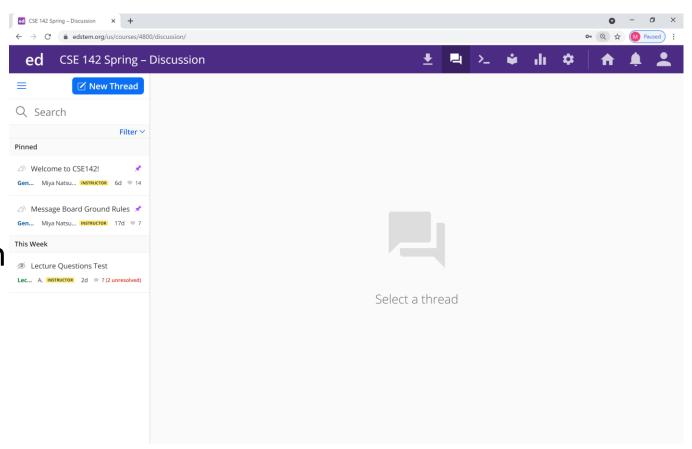


- I like seeing your faces. ©
- Chat will usually be disabled in lessons
 - But we'll have other options...



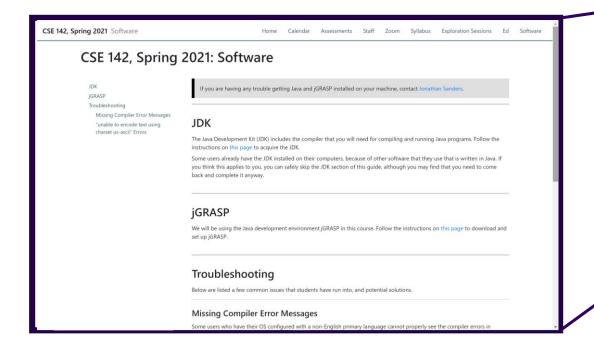
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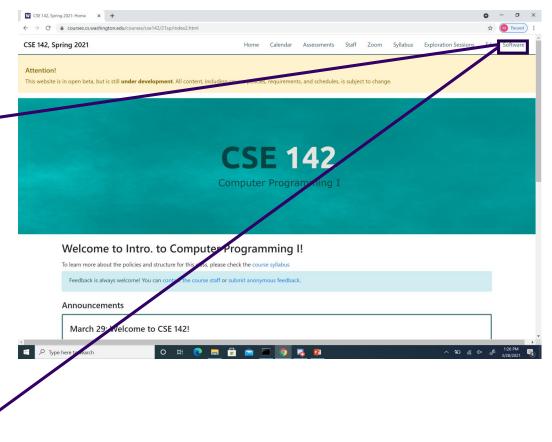
- Our online learning platform
- Lessons, sections, labs, assessments all here
- Lecture Megathreads for each day that will be monitored by TAs during lecture
- Intro and walkthrough video forthcoming



Software

You will need to install the JDK and jGRASP





PollEverywhere

pollev.com/mnats

Two purposes (at least):

- In-class activities
 - Short questions, problems, etc.
 - Usually multiple choice
 - Not graded
 - Not even on participation

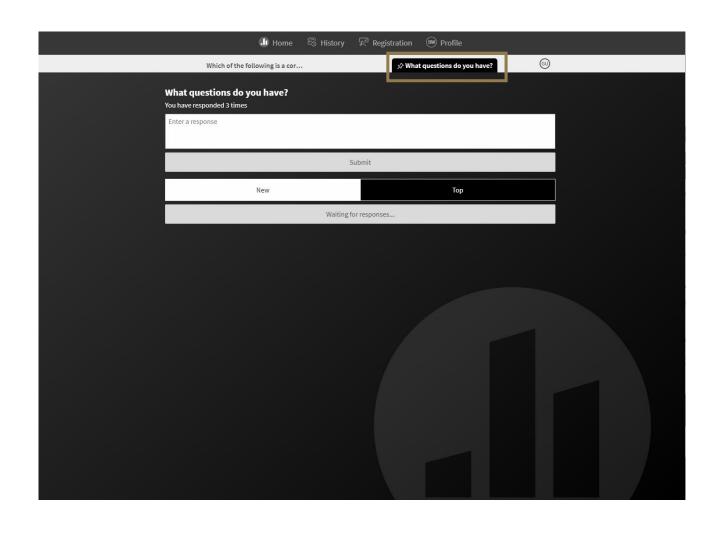
```
■ Home 
History 
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                                                                            GU
        Which of the following is a cor...
                                               Which of the following is a correct Java program?
You can respond once
 public class Say Hey {
    public static void main(String[] args) {
       System.out.println("Hi there!");
 Public Class SayHey {
   public static void main(String[] args) {
       System.out.println("Hi there!");
 public class SayHey {
    public static void main(String[] args) {
       System.out.println("Hi there!");
 public class SayHey {
    public static void main(String[] args) {
       System.out.println(Hi there!);
```

PollEverywhere

pollev.com/mnats

Two purposes (at least):

- Questions backchannel
 - Ask questions at any time
 - I'll check periodically and respond
 - Some may be deferred
 - Answers will be posted on Ed after class



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Assessment and Grading

- Our goal in the course is for you to master the concepts and skills we teach
- We assess your mastery 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 mastery
- Your final grade should reflect the extent to which you have demonstrated mastery of the course objectives

Assessment

- Your learning in this course will be assessed in four ways:
 - Checkpoints (~weekly)
 - Short problems to help you practice and make sure you've got the basics for the week
 - Take-home assessments (~weekly)
 - Large programming assignments to assess your full mastery of that week's concepts (plus some previous material)
 - Culminating assessments (2/quarter)
 - Series of problems covering all material up to that point
 - Reflections (w/other assignments)
 - Written assignments to help you think critically about your learning and progress

Resubmission

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

- One previous take-home assessment can be **resubmitted** each week
 - Initial submission must have been made by original due date
 - Must be accompanied by a write-up describing changes
 - Grade on resubmission will replace original grade
- See the <u>syllabus</u> for more details

Grading

Grades should reflect your mastery of the course objectives

- Checkpoints, culminating assessments, and reflections are graded S (Satisfactory) or U (Unassessable)
 - If you submit on time and meet all requirements, you'll get an S
- Take-home assessments will be grade E (Exemplary), S (Satisfactory), N (Not yet), or U (Unassessable) on four dimensions:
 - Behavior
 - Functional decomposition
 - Use of Language Features
 - Code Quality
- Final grades will be assigned based on the amount of work at each level
- See the <u>syllabus</u> for more details

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
- If you discuss your ideas with others, you must cite them
- All work you submit for grading must be your own
- Any work found to not be your own will receive a grade of U and may not be resubmitted
 - If it's not your work, we can't assess your mastery from it
- See the <u>syllabus</u> for more details

Amnesty

Sometimes, we make bad choices that we regret

 "If you submit work that is in violation of the academic conduct policy, you bring the action to Brett's attention within 72 hours of submission and request amnesty. If you do so, you will receive a grade of U for the initial submission, but you will be allowed to resubmit your work under the normal resubmission process."

See the syllabus for more details