

LEC 01

CSE 121

Printing, Strings, and Variables

Questions during Class?

Raise hand or send here

sli.do #cse121



BEFORE WE START

*Talk to your neighbors:**What is your favorite handheld food?***Respond on sli.do!**Music: 🍁 [CSE 121 26au Lecture Tunes](#) 🍁**Instructor:** Miya Natsuhara and Anjali Pal

TAs:	Samrutha	Tamsyn	Owen	Jennie
	William	Cedric	Jameson	Anisha
	Samvedha	Anum	Paul	TJ
	Syreeta	Navya	Gurbax	Ivory
	Ryan	Gene	Tony	Sarah W
	Anant	Margot	Lucas	Avery
	Henry	Sarah K	Alex	
	Reese	Ethan	Jesse	
	Savannah	Evelyn	Matthew	

Agenda

- **Announcements, Reminders**
- Syllabus Review
 - Assessments, Grading, Collaboration, and AI
- Hello, World Review!
- Printing, Strings, and Variables
- Code Example

Announcements, Reminders

- Links to all materials and activities are available on the [website](#)
- Fill out the [welcome survey](#) by **tonight** at 11:59 PM
 - gives us valuable insight!
 - important that Google Forms works in CSE 121
 - Google Forms [troubleshooting guide](#) on website
- New Ed tool: [Sandbox](#) (write all the code you want!)

Aside: TA Office Hours!

The [IPL](#) (TA office hours) will open on Monday (Apr 6) at 12:30 PM.

- one of the best parts of the course!
- but, TAs are instructed to not just give you the answer!
 - why not? you wouldn't be learning!
 - e.g. “my code doesn't work” versus “I tried X, expected Y, but got Z. Thoughts on what to try next?”
 - also true for instructor office hours ;)

Expect an announcement on Ed with a detailed schedule soon!

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Assessment

Why assessment?

- Our goal: you gain **proficiency of the concepts and skills** we teach
- We *assess* your proficiency by asking you to apply these concepts and skills on tasks
- By necessity, we are assessing your work as a proxy for proficiency

Grading

- All assignments will be graded E (Excellent), S (Satisfactory), or N (Not yet)
 - Under certain circumstances, U (Unassessable) may be assigned.
- Final grades will be assigned based on the number of grades at each level
- See the [syllabus](#) for more details

Graded Work

- **Programming Assignments:** 1 ESN grade (4 assignments, 4 total)
 - Structured programming assignments to gain practice using the programming constructs introduced in class
- **Computer Quizzes:** 4 ESN grades (4 computer quizzes, 16 total)
 - Derived from the corresponding programming assignment
 - Modify, improve, augment, and explain project code
 - Proctored, no AI or external resources allowed
- **Paper Quizzes:** 4 ESN grades (4 paper quizzes, 16 total)
 - Questions about the core conceptual material
 - Proctored, no electronics usage allowed
- **Code Quality:** 3 ESN grades
 - Cumulative across computer quizzes
- **Participation:** 1 ESN grade
 - PCMs + engagement during Section
- **Total:** 40 ESN grades

Course Grades

We provide a “*minimum grade guarantee*” for translating to a numeric grade, but not a direct formula.

Much more on this in the [syllabus](#)! (and over the next few weeks)

Minimum Grade	Requirements
<i>Total ESN available</i>	40
3.5	32 Es and 3 additional S+
3.0	24 Es and 8 additional S+
2.5	16 Es and 13 additional S+
2.0	8 Es and 18 additional S+
1.5	18 S+
0.7	10 S+

$S+ = S \text{ or } E$

Computer Quiz Retake and Paper Quiz Overriding Policy

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

- One Programming Project + Computer Quiz pair can be resubmitted and retaken
 - If you resubmit code, you must retake the quiz. You may retake the quiz with the same code you submitted previously.
 - Grade on resubmission/retake will replace the original grade.
 - Retakes happen in the last week of classes through final exams.
- Paper Quiz 4 will be administered during the Final Exam period, and will additionally include an opportunity to replace one problem grade from each previous paper quiz

Collaboration and AI

- We encourage you to collaborate (with each other and/or AI tools) on programming projects
- **You may not collaborate (with classmates or AI) on Quizzes**
- Computer quizzes closely correspond to programming assignments, so understanding your project code is key to success on the quiz
- You must cite your collaborators (classmates or AI)
- Do not discuss quizzes until after grades are released

See the [syllabus](#) for more details. Violations of these policies will be reported to the Office of [Community Standards & Student Conduct](#).

Much More About AI – Talk To Us!



- AI can be used to generate useful code in lots of settings!
 - Currently, mostly AI + expert programmers. There is limited data about software created by AI + non-expert programmers
- AI can provide a tempting way to avoid **productive struggle**
- ethical concerns related to the creation and use of AI
- negative outcomes, from the [environment](#) to [mental health](#) or [class culture](#)

Have questions? Talk to us!

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Code Quality

"Programs are meant to be read by humans and only incidentally for computers to execute." –Abelson & Sussman, SICP

Code is about *communication*. Writing code with good **code quality** is important to communicate effectively.

Different organizations have different *standards* for code quality.

- Doesn't mean that any one standard is wrong! (e.g., APA, MLA, Chicago, IEEE, ...)
- Consistency is very helpful within a project
- See our [Code Quality Guide](#) for the standards we will all use in CSE 121

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PCM: Printing, Strings, Variables

- `System.out.print(...)`
 - Prints the given text to the console
- `System.out.println(...)`
 - prints the given text to the console, and then moves to the next line
- **String literals**: a sequence of characters that are *strung* together
 - begin and end with `"..."`
 - example: `"hello"`
- Variables allow us to give a name to a specific value
 - 3 parts: **declaration**, **initialization**, **usage**
 - example:

```
String bestClass = "CSE 121";  
System.out.println(bestClass);
```



Practice: Think

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How many lines of output would the following code produce?

```
System.out.println("hello");  
System.out.print("moi");  
System.out.print("bonjour");  
System.out.println("pryvit");  
System.out.print("nihao");  
System.out.println("hola");  
System.out.print("namaste");
```

a) 1

b) 2

c) 3

d) 4

e) 5

f) 6



Practice: Pair

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How many lines of output would the following code produce?

```
System.out.println("hello");  
System.out.print("moi");  
System.out.print("bonjour");  
System.out.println("pryvit");  
System.out.print("nihao");  
System.out.println("hola");  
System.out.print("namaste");
```

a) 1

b) 2

c) 3

d) 4

e) 5

f) 6

Escape Sequences

Escape Sequence: Special sequence of characters used to represent certain special characters in a String.

- `\"` to produce `"` in a String
- `\\` to produce `\` in a String
- `\n` to produce a new line character (or line break) in a String
 - note: in our class, we will ask you not to use this
- and many more!

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