

# Welcome to CSE 142!

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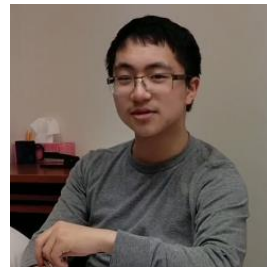
*Please make sure your microphone is muted.*

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

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You Made It!

# Thank your TAs!!



# Learning Objectives

*or, “What ~~will~~ did 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

# (Partial) Topic List

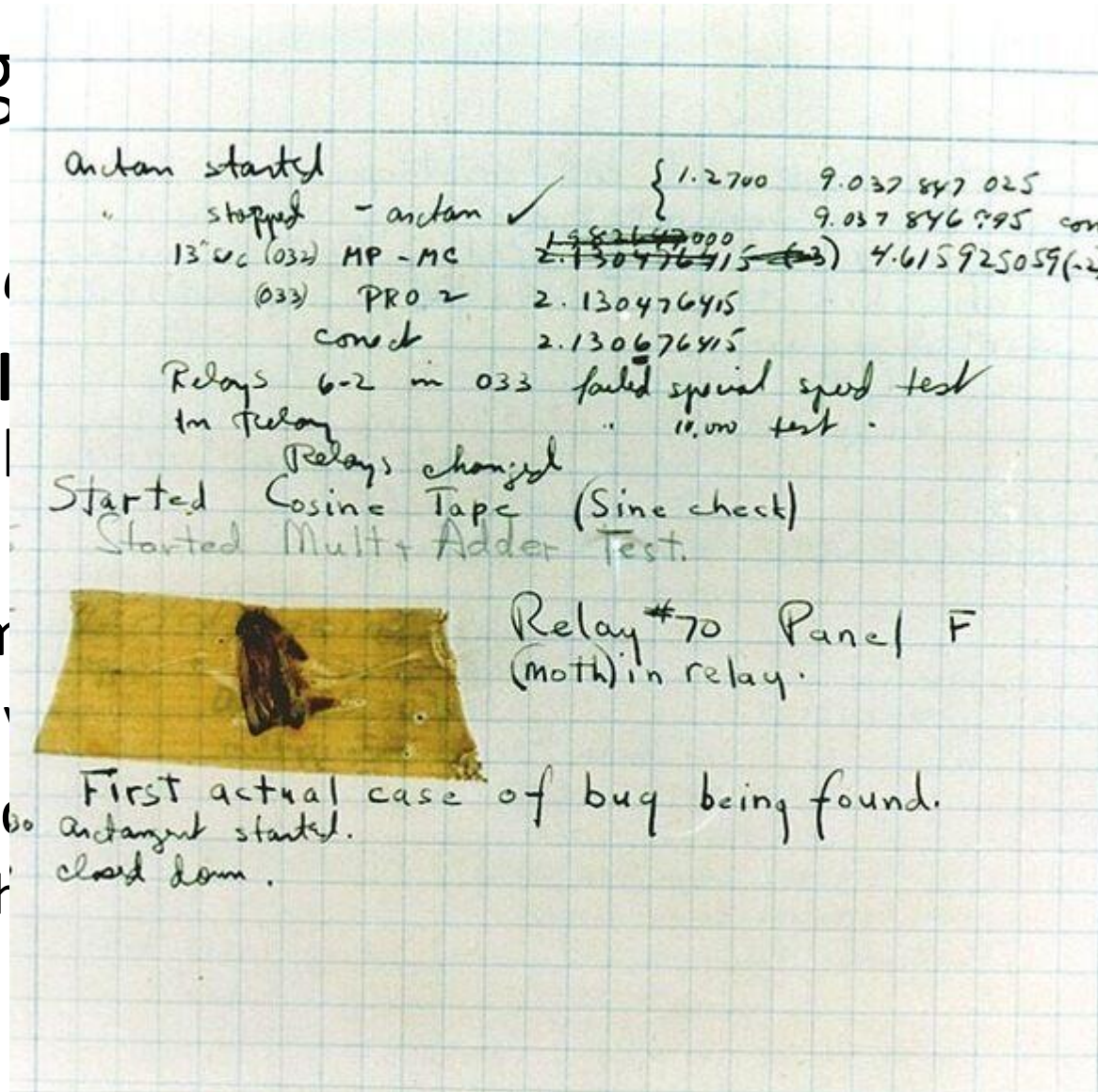
*or another view on “What did I learn in this class?”*

- Methods
- Parameters
- Return Values
- Variables
- Types
- Loops (for and while)
- Conditionals
- Console (User) I/O
- File I/O
- Arrays
- Classes
- Inheritance
- ArrayList

# Underlying

or "What did I learn

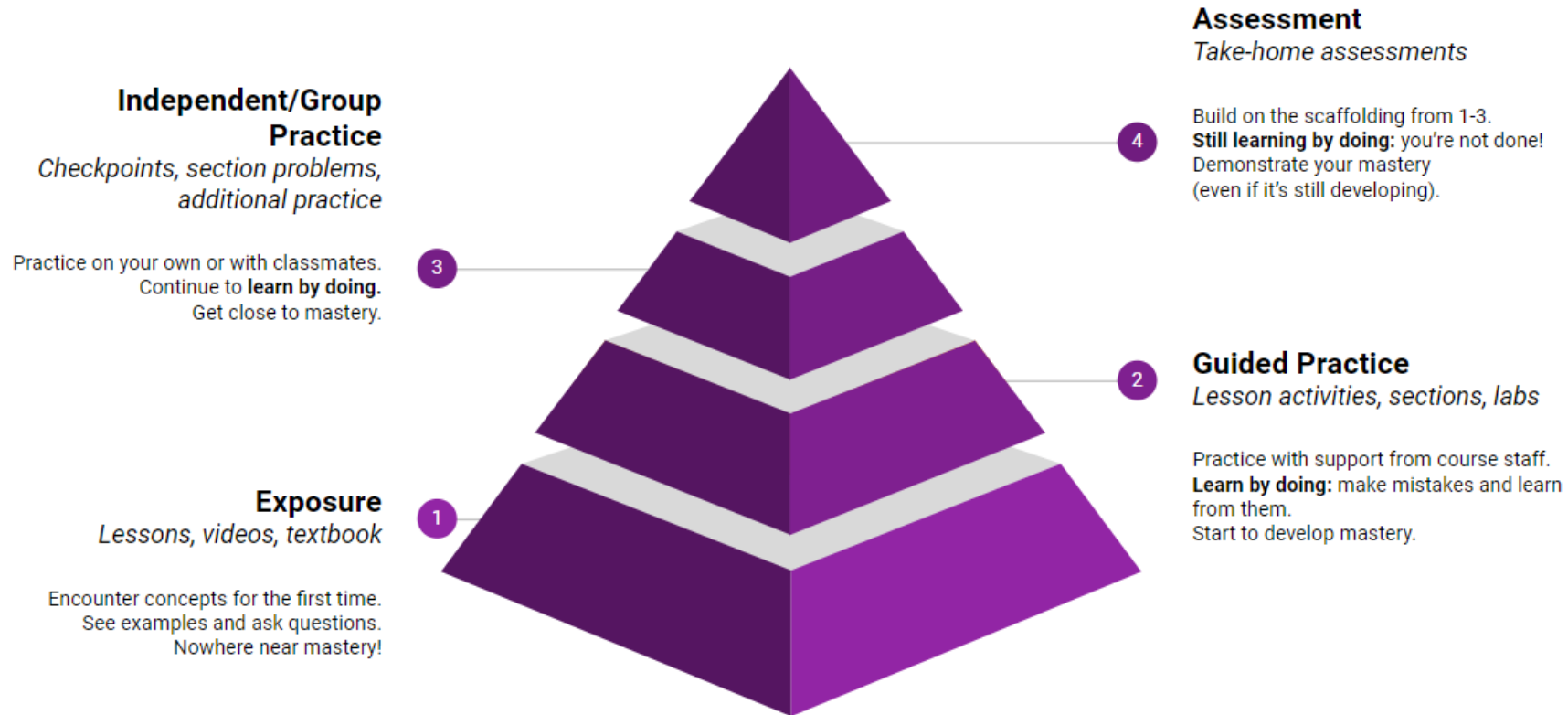
- **Computational** defined steps to
- "Thinking like
- **Testing:** determine
- Requires really
- **Debugging:** find
- Often just as hard



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3)  
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# Learning in CSE 142 (or anywhere)



# Applications of CS

*or “What can I do with what I learned?”*

- Detect and prevent toxicity online
- Digitize basketball players
- Help DHH people identify sounds
- Figure out how to best distribute relief funds
- Recognize disinformation online
- Make movies
- Improve digital collaboration
- Fix Olympic badminton
- And so much more!



# Future Courses

*or “What can I do next?”*

Course	Overview
<a href="#">CSE 143</a> +	Intermediate programming with data structures (Java)
<a href="#">CSE 154</a> +	Introduction to web programming (several languages)
<a href="#">CSE 160</a> +	Introduction to programming for data analysis (Python)
<a href="#">CSE 163</a> +	Intermediate programming for data analysis (Python)
<a href="#">CSE 180</a>	Introduction to data science (Python)

+ Offered in Autumn 2021

See also: <https://www.cs.washington.edu/academics/ugrad/nonmajor-options/intro-courses>

# Frequently Asked Questions

- How can I get better at programming?
  - Practice!
- How can I learn to X?
  - Search online, read books, look at examples
- What should I work on next?
  - Anything you can think of! ([Here are some ideas](#))
  - Beware: it's hard to tell what's easy and what's hard.
- Should I learn another language? Which one?
  - That depends– what do you want to do?
- What's the best programming language?
  - 😞 (take CSE 341)



Thank you!!!

