Course: 15-213 Introduction to Computer Systems

Aim: improve programming skills through knowledge of CS basics

Course Learning Objectives:

- Recognize the relation between programs

- Interpret intention of programs and how to debug them

- Apply/ develop programming aids

Carnegie Mellon University

School of Computer Science

Constraints

- Scale: 1500 students per year
  - Breakout rooms less feasible
- Timing: instructor prefers integrated approach
- Post-lecture time slot

Module Learning Objectives
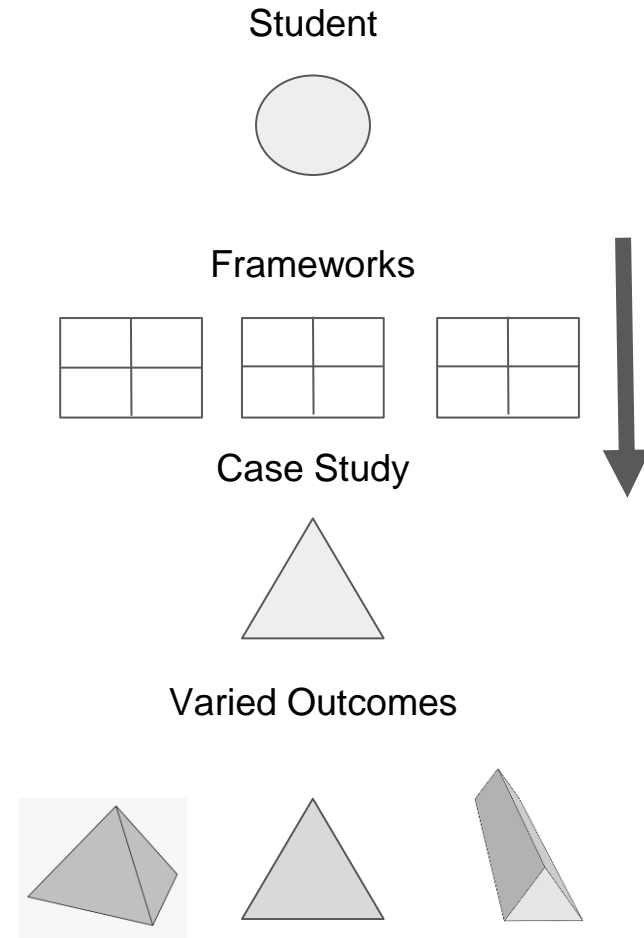
Prioritize takeaways for future use!

- Apply frameworks to case studies

- Consider ethical context of programming

- Understand inherent vulnerabilities of code

Topic:

6 topics illustrated by case studies

- Exploit reporting best practices
- Conflicts of interest
- Ethical culpability
- Ethicality of quality attribute requirements
- Power of code to influence users
- Plagiarism, 'scooping,' & fair use

Student

Frameworks

Case Study

Varied Outcomes

Implementation Design

Original	Feedback	New

1. CS presented in-class
   a. ≈15 min
 	
2. Partner discussion
 	
1. Reflection journal HW
	1. Too quick!
	
	1. Groups still work!
	
	1. Analysis?
		1. CS on Canvas
		
		1. Pre-class Discussion Board
		
		1. Post-class Google Form
		   a. What changed?