CS2113: Software Engineering

Be sure you have:
- a GitHub account
- a container started on CodeAnywhere

If not: check instructions in Lab 1 at

https://cs2113f18.github.io/

Professor Tim Wood - The George Washington University

Welcome

CS 2113 Software Engineering 1

- Prereq: CS 1112 Algorithms & Data Structures

Professor Tim Wood

- timwood@gwu.edu
- Office Hours: TBD
  - SEH 4580

TA: Yawei Wang

- yawei@gwu.edu
- Office Hours: TBD

UTA: Devin Kopp

- devinkopp@gwu.edu
- Office Hours: TBD

LA: Sarah and Billy

- In class helpers

Grader: Fangtian Zhong

Lectures: TOMP405
Wednesday 3:30-6PM

Labs: SEH4040
Monday 9:00-10:10
or
Monday 2:10-3:20

Course Website

https://cs2113f18.github.io/

Course Outline

Weeks 1-3: Introductory C programming

- Syntax, memory management, libraries, file IO

Weeks 4-8: Intermediate Java programming

- Quick review, objects, class hierarchies

Weeks 9-14: Advanced Java Topics

- GUIs, concurrency/threading, IO, networking, web

Throughout: Software engineering techniques

- Requirements, Architecture, Design Principles
- AND LOTS OF CODING PRACTICE!!

Course Overview

Course Goals:

- Learn the basics of C programming
- Understand the memory model used in Java and C
- Deduce software requirements from a problem description
- Design complex software architectures
- Get excited about more advanced programming topics

Workload:

- Lots of small programming exercises **(25%)**
- Large programming projects **(30%)**
- Quizzes **(10%)**
- Midterm and Final **(30%)**
- Participation (in class and online) **(5%)**

Course Policies

Late work

- Lose 10% per day late
  - Need approval from me to submit after 5 days
- 2 Late Passes = each is a 48 hour extension

READ the syllabus!

Academic Integrity

- Your code and solutions must be your own!
- You **may** meet with other students to discuss your ideas
  - But you **may NOT** share or copy any code
- If you use a tutor, ask the tutor to email me
- Penalties for violating the code **include failing** this course!
- See syllabus website for more details, or ask me

If you have a disability that may affect you in this course, EMAIL me!

Piazza

We will use Piazza for a course Q&A forum

- Great way to get participation points!

Allows you to both ask and answer questions

- Answering questions can help your participation grade!
- Use common sense: answer general questions, but don't post solutions to homeworks

If you have general questions, post to Piazza first

If you have specific questions relating to your code, ask me or the TA

- Office hours if possible, email otherwise

Computer Policy

There is a computer in front of you.

Computers are distracting.

Allowed:

- class website, GitHub, CodeAnywhere

Not Allowed:

- anything else!

I reserve the right to revoke computer privileges

- as if you were a small child.

Course Style

Very hands-on!

Course website has learning modules

- We will go through them in lecture, lab, and at home

Everything you need will be on the website

- In Java we will also have supplementary readings in textbook

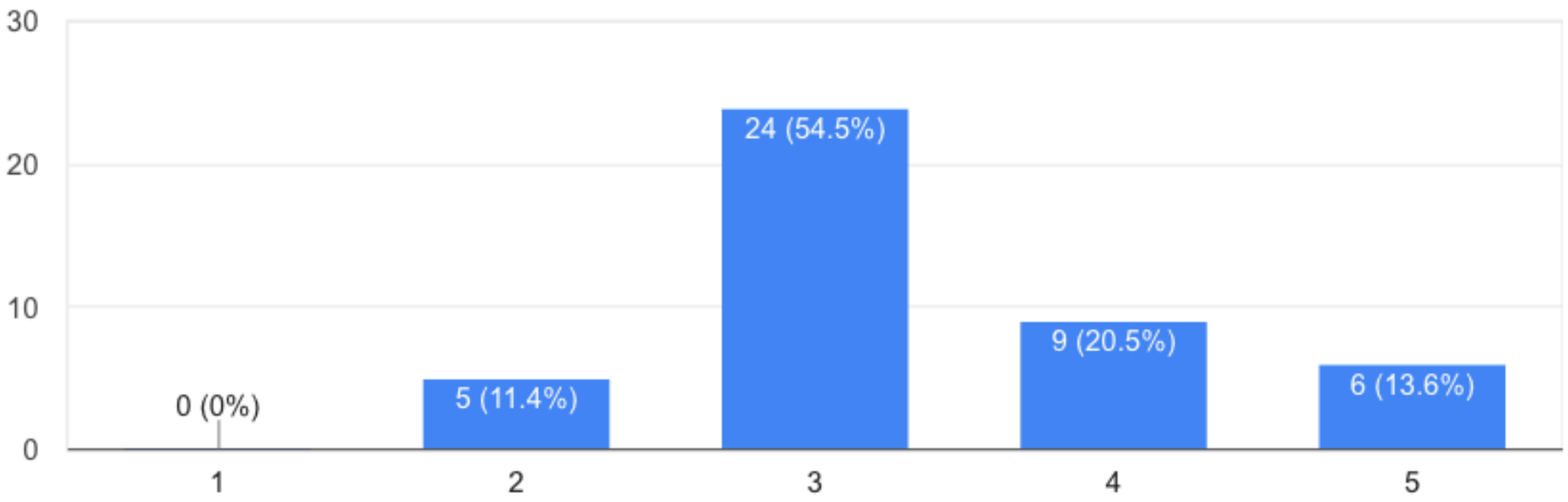
Modules are designed to give you lots of practice

Learning assistants will be here to help

Becoming a SW Engineer

How comfortable are you with programming?

44 responses



How do you become…?

An athlete?

A musician?

A skilled artist?

Deliberate Practice

Purposeful practice and repetition

- Build your programming ‘muscle memory’

Build your familiarity with C and Java

- Help you understand the theoretical and practical differences between them

You understand best by **doing** things

- Minimal lecturing / slides during the rest of the course

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Your responsibilities:

- Do the work!
- Read the materials carefully, don’t rush!
- Think about what you are doing and why we are doing it
- **Ask questions!**