CS 518: Introduction

Intro to Software Engineering

Who?

- Instructors: David Benedetto, Matt Plumlee
- TA, UTA's:

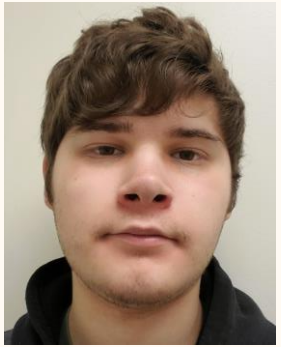

Zheyun Feng


Riley Mularien


Jared King


Sam Palumbo


Michaela Power


Justin Choquette


Everett Brown

Who?

- Instructor: Matt Plumlee
- TA (Zheyun), UTA's
- You:
  - Majors: CS, IT, ADS, others?
  - Future goals:
    - Industry
    - Research
    - Teaching
    - …

Outline

- Who?
- Why?
- How?
  - Graded components
  - Resources
  - Boundaries & Expectations

Course goals

You will learn about…

- **Software Development Life-Cycle**
  - Design, development, & deployment of production-quality applications
- Software Engineering **principles/practices**
- Software Engineering **tools**

…in the context of developing a web app

Practically speaking…

- Foundation for **internships in industry**
- Appreciation for work needed to produce software **besides programming**
  - Communication, writing, research
- Practice **working in groups** on software
  - CS 619 (Intro to Object-Oriented Development)
  - IT 705 (Project Management for Information Technology)
  - CS/IT 791/792 (Senior Project)

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Grading overview

~25 % Reading/journaling/discussion

~20 % Quizzes

~30 % Lab assignments

~25 % Group project

Reading-oriented assignments

- Before each lecture:
  - Complete assigned reading
  - Post to Canvas discussion
- During lectures:
  - Review concepts, some in more depth
  - Answer questions
  - Do conceptual activities

Quizzes

- Three quizzes
  - Likely to be in weeks 5, 8, and 11
  - Online/remote on Thursdays of those weeks
- Material covered
  - Reading
  - Lectures
  - Conceptual activities

Lab assignments

- Labs
  - Work done in assigned groups
  - Start work on Wednesdays (usually)
  - May continue working through following Monday
  - Monday period: good time to finish as a group
- Submit work
  - Some graded individually
  - Some graded as a group

Notes about labs

- Groups assigned at start, remain the same
- Lab attendance is mandatory
  - No credit if not present, TA/group not notified
  - Prorated credit for partial attendance
- If **cannot** attend in-person, contact us early:
  - May participate remotely
  - May contribute asynchronously

Group project

- Some project work is done in labs
- Other components:
  - Sprint reports (included meeting minutes, GitLab)
  - Final presentation
  - Final product
  - Final report

Notes about grading

- Group grading adjustments
  - "Grade adjustment" assignment: lets us penalize/reward individual for contribution to group work significantly outside of expectation
- Late work: –10% per day up to 5 days
- Regrading: Some work may be redone for partial credit

Overall structure of the course

- Three main modules
  - **Project management** (~weeks 1-5)
    - Labs: Setup & Planning
  - **Architecture & design** (~weeks 6-8)
    - Labs: Data service
  - **DevOps** (~weeks 9-11)
    - Labs: Web app
- Final project work (~weeks 12-14)

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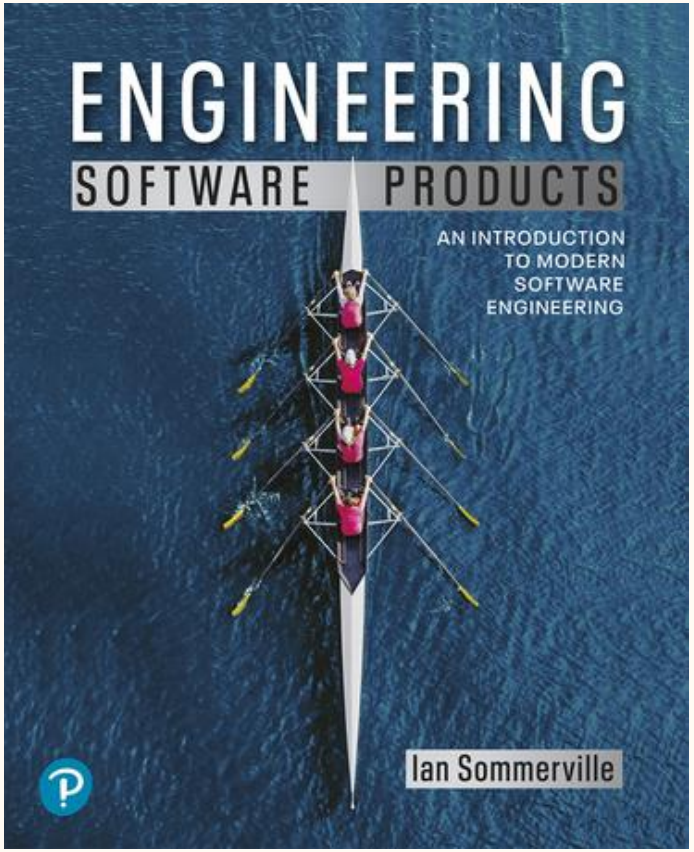
Textbook

- Required text →
- On reserve in library
- Can rent online

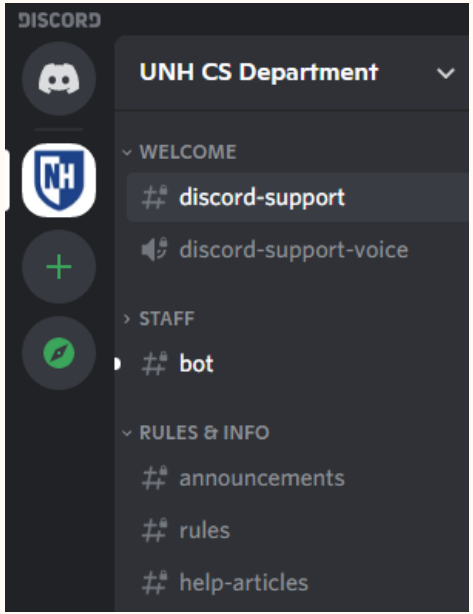


- Also will use https://www.atlassian.com/agile

Canvas

- Class page: https://mycourses.unh.edu/courses/106559
- Most course material will be posted here
  - Lecture slides (recorded classes when necessary)
  - Readings, discussions, and quizzes
  - Lab and project descriptions
- Also found here:
  - Deadlines
  - Point allocations
  - Grades

Discord: UNH CS Department



- Will be primary communication for…
  - Labs: #cs518-lab channel, group channels
  - Office hours: breakout in #cs518 channel
    - Can do breakout directly with instructor or TA
- If can't see #cs518, ask in #discord-support
- Tips (video here: https://youtu.be/Q9y0R-9V61s):
  - Can get someone's attention using @ + their name
  - Breakout room for chat: /breakout create @Matt Plumlee
  - Can share screen or see shared screen

If you haven’t signed on to Discord…

- Join using this link: https://csonline.cs.unh.edu/login
- Further instructions included in Rules & Info channels
- (Old?) Instructions here: https://www.notion.so/6a736f6e/UNH-CS-Online-Platform-Wiki-f4a1fee8992d4a9989fccb14874496d6

Additional help

- Over Discord (#cs518):
  - Office hours
  - Instructor/TA by appointment
  - Use /breakout and person's handle to start private chat
- Physically: Kingsbury 2nd floor West if needed
- Campus resources (DSS, counseling, etc.)

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Some words about online code

When completing projects…

- You are expected to **look online for examples**
- You are expected to **copy and paste relevant code** from generic examples and modify them to fit your needs
- You are expected to **give credit to sites you've copied from/adapted**

Some words about collaboration

When working on group projects…

- You are expected to **confer with each other about online resources and technical details, preferably through a public channel**
- You may **not share code across project groups**
- Individual submissions should be completed ***individually***, as independently as possible
- Group submissions should be completed as a ***team***

What's next?

- Familiarize yourself with course area on Canvas
  - Find slides
  - Find tomorrow's lab
- ***Get set up on Discord (more setup in lab)***
- And now, on to a high-level overview of software engineering…