

# CSCI 240: Software Engineering

## Course Syllabus – Fall 2021

**Instructor:** David Chiu

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**Course Page:** <https://canvas.pugetsound.edu/courses/6525>

**Office Hours (Zoom-only. See Canvas for Link):**

- Mon/Wed/Fri 9:00am - 10:00am
- Tues 2:00pm - 4:00pm
- By appointment

**Course Meeting Times:** Tues/Thurs 11:00am - 12:20pm in TH 399

**Final Exam:** Tue, Dec 14, 12:00pm - 2:00pm

## 1 Required Accounts for Class

Use your @pugetsound.edu address to log in or sign up:

- Github (<https://github.com>)
- Zoom (<https://pugetsound-edu.zoom.us>): For attending virtual office hours, tutoring

## 2 Course Information

Students study the design and implementation of large software systems. Topics include design methodologies, programming team organization, and management, program verification and maintenance, design patterns and software engineering tools.

### Prerequisites

A grade of C- or higher in the following course is required, or with permission from the instructor:

- *CSCI 261 - Computer Science II*

### Possible Topics

- Software lifecycle and process models
- Agile development methods
- Scrum
- Source control with Git
- Testing and test automation
- Web development

- JavaScript
- Document Object Model (DOM)
- Event handling
- Asynchronous execution
- Node.js and Express Server
- MongoDB (if time allows)

### 3 Grading

The following grade cutoffs are upper bounds. They might come down, but will not be set higher: A = 95, A- = 90, B+ = 87, B = 83, B- = 80, C+ = 77, C = 73, C- = 70, D+ = 67, D = 64, D- = 60, F = < 60. Your overall grade will be composed as follows:

	% Weight
Participation	5
Homework Assignments	40
Project – User Stories, Scenarios, Features	10
Project – Weekly Scrum Reports	10
Project – Weekly Git History Review	10
Project – Final Code Base	20
Project – Final Presentation	5

Table 1: Breakdown of Grades

### Assignments

- **Homework Assignments (Individual)** – You will be working on all homework assignments on your own. As usual, you are allowed consult other students and the web for ideas, but don't blur the lines between idea-generation and plagiarism. If you have doubts, ask me!
- **Term Project (Team)** – Around halfway into the semester, you will be assigned a team (3-4 members) to carry out a significant software project. The scrum method must be used, and daily progress (however little or much) should be documented by the project manager. Each member of the team should contribute equally to the assignment. The following items will be graded.
  - User stories, scenarios, and features (all members receive the same grade)
  - **Daily** scrum logs (graded weekly, individually)
  - Git commit history (graded weekly, individually)
  - Final code base (all members receive the same grade)
  - Final presentation (all members receive the same grade)
- **Late Work** – A  $3^d$  point deduction will be assessed, where  $d$  is the number of days late including weekends. No late work will be accepted one week after the due date.

## Tutoring and Proper Etiquette

You are encouraged to drop-in or reach out to tutors for help. You are helped on a first-come-first-served basis. Come prepared to explain your questions in detail. Tutors have not always completed the assignments you're working on. **Also, remember to be kind.** Tutors are volunteering *their* time to help you. Don't be rude to anyone if they can't help you write your code right away. They are specifically trained to *not* just give you answers, but to help get you on the right track.

## Discretionary

Discretionary points will be given based on:

- Regular attendance (unless excused)
- Classroom participation
- Arriving to class on time

## 4 Community Statement

Students taking this course range from those with no prior background in programming to those with substantial experience and prior coursework. Because this course is an introduction to computer science, I do not expect students to have had any prior experience in programming. The course will work best if we respect and welcome each other no matter what level of "readiness" we are at, and we all support one another in learning. I will not tolerate behaviors that could negatively affect another student's classroom experience. Such behaviors might include: making rude or condescending comments, snickering at others' questions or comments, talking over other individuals, and so on. I reserve the right to withdraw a student from this class who is repeatedly exhibiting such behavior.

The goals of this course can only be accomplished in a setting of mutual respect, where ideas, questions, and misconceptions can be discussed with civility. As your instructor, I am committed to creating a classroom environment that welcomes all students, regardless of their identities (e.g., race, class, gender, sexual orientation, religious beliefs). I firmly believe that everyone in the class is fully capable of engaging and grasping the material, and that the world of computing is stronger when it includes the broadest possible set of perspectives. We all have unconscious biases, and I will try to continually examine my judgments, words, and actions to keep my biases in check and treat everyone fairly. I hope that you will do the same. If you feel comfortable, please let me know if there is anything I can do to make sure everyone is encouraged to succeed in this class.

## 5 Course Policies

### Academic Integrity

You should be aware of the *Student Integrity Code* at the university. Any suspected cheating (e.g., plagiarizing code, copying homework solutions, etc.) will be reported to the Registrar, which may result in possible suspension/expulsion. See this link for more info:

<http://www.pugetsound.edu/student-life/personal-safety/student-handbook/academic-handbook/academic-integrity>

## **Student Accessibility and Accommodation**

If you have a physical, psychological, medical or learning disability that may impact your course work, please contact Peggy Perno, Director of the Office of Accessibility and Accommodation, 105 Howarth, 253.879.3395. She will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential.

## **Classroom Emergency Response Guidance**

Please review university emergency preparedness and response procedures posted at [. There is a link on the university home page. Familiarize yourself with hall exit doors and the designated gathering area for your class and laboratory buildings.](#)

If building evacuation becomes necessary (*e.g.* earthquake), meet your instructor at the designated gathering area so she/he can account for your presence. Then wait for further instructions. Do not return to the building or classroom until advised by a university emergency response representative.

If confronted by an act of violence, be prepared to make quick decisions to protect your safety. Flee the area by running away from the source of danger if you can safely do so. If this is not possible, shelter in place by securing classroom or lab doors and windows, closing blinds, and turning off room lights. Lie on the floor out of sight and away from windows and doors. Place cell phones or pagers on vibrate so that you can receive messages quietly. Wait for further instructions.

## **Student Bereavement Policy**

The University of Puget Sound recognizes that a time of bereavement can be difficult for a student. Therefore, the university provides a Student Bereavement Policy for students facing the loss of a family member. Students are normally eligible for, and faculty members are expected to grant, three consecutive weekdays of excused absences, without penalty, for the death of a family member, including parent, grandparent, sibling, or persons living in the same household. Should the student feel that additional days are necessary, the student must request additional bereavement leave from the Dean of Students or the Dean's designee. In the event of the death of another family member or friend not explicitly included within this policy, a bereaved student may petition for grief absence through the Dean of Students' office for approval.

## **6 Course Schedule**

The following course schedule is tentative and subject to change.

Week	Topics	Reading
1	Intro; software lifecycle	Sommerville: Chap 1; HTML+CSS Tutorial
2	Source control and Git	David's Git Notes
3	Source control (cont.); Start JavaScript	David's Git Notes
4	JavaScript fundamentals	
5	DOM navigation, manipulation, events	
6	Event handling	—
7	Asynchronous execution, Promises	—
8	Ajax, JSON; Start Node.js	
9	More Node.js and Writing Web APIs	
10	Process models; Agile scrum	Sommerville: Chap 2-3
11	System Modeling	Sommerville: Chap 5
12	Testing: unit testing and automation	Sommerville: Chap 8
13	<i>Thanksgiving Break</i>	—
14	TBD	
15	<i>Industry panelists</i>	