CS240 Software Engineering  
Spring 2020  

Syllabus

---

**Place & Time**  
Monday, Wednesday, and Friday: 11:00 - 11:50 AM, Thompson Hall 409.

**Course Website**  
Materials for this course are available at:  
http://mathcs.pugetsound.edu/~xichen/cs240s20.html

**Instructor**  
Xi Chen - Thompson Hall 600.  
xichen@pugetsound.edu

**Office Hours**  
Monday, Wednesday, and Friday: 3:00 - 4:00 PM  
(I am also available by appointment at a time more convenient for you.)

**Textbook**  
(Required)

Recommended reading:

- Essentials of Software Engineering, 3rd edition by Frank Tsui, Orlando Karam, and Barbara bernal.
- Agile Estimating and Planning by mike cohn
- Software Engineering , 10th edition by Ian Sommerville, Addison Wesley Inc.

**Course Description**  
An introduction to software engineering with an emphasis on the Agile method. The focus of the course will be a semester-long project completed as a team. This will include project design and architecture, requirements gathering, scheduling, and release management.

**Course Outline**  
This includes the following topics:

- Create a dynamic websites by using PHP, JavaScript, CSS, and HTML (without database)
- An overview of software engineering.
- The Agile software development methodology.
- An overview of other development processes.
- Source code control using github.
- Project configuration management.
- Requirements engineering.
- Testing, integration, and quality assurance.
- Support documentation.

Project
A significant portion of this class is to design and implement a software project using the design methodology presented in this class. This project will be completed through several successive iterations producing releases, ranging from an initial prototype to a final product release. In general, releases will follow approximately a three or four week production schedule. Release dates are as follows:

- **Release 1 (R1)** – March 13, 2019
- **Release 2 (R2)** – April 15, 2019
- **Release 3 Final (R3)** – May 13, 2019

Deadlines
An important component of software engineering is designing schedules and meeting deadlines. We will organize most assignments for this class through a set of deliverables along with a due date for each deliverable. It is crucial that you meet the required due date for each deliverable. If a deadline is missed, the assignment for the missed deadline will be deducted by 5% for the team for each day (weekends count as one day) the assignment is late. Fortunately, the Agile approach we will be following emphasizes meeting deadlines and encourages lessening requirements for a deliverable to meet the delivery date versus extending the due date.

Teamwork
Most of the work you will complete this semester will be done as a team. Teams will be formed on 02/05/2020. The most important component produced by your team is your project, although there will be several smaller assignments in addition to the project that are to be completed by the team.

To increase communication, approximately 10-15 minutes of class time per week will be set aside for quick team meetings. The frequency and length of the meetings will depend upon where we are with respect to the schedule of deliverables. In addition, a significant amount of class time will be used to work on your project as a team. This means your team should come to each class prepared to work. This also means that each individual team member attend all classes. In some ways, missing a class is like missing a day of work, and your absence may mean lost productivity for your
team. If you are unable to make a class, it is important that you communicate your absence to your teammates and your instructor – preferably ahead of time.

Problem Teammates
Hopefully your team will be a collegial, fun, and productive group, but problems can occur. It is crucial that you identify any problems early on and first try to resolve issues as a team. However, if one team member is not fulfilling their responsibilities and the issue cannot be resolved as a team, it is the responsibility of the team – or project manager – to notify me of the problem. Hopefully this can address the problem and the team can resume functioning productively. However, if problems persist after contacting me, the team can decide to fire the said member. Once fired, the team member can try to find another job with another team. If they do find a job, their final grade for the project will be deducted by 20%. If they cannot find a job, their grade for the project will be the total amount of points the team has earned up to the time of firing. In other words, if you get fired, it will be very difficult to pass this class!

Grading
Your grade will be assigned according to the following percentages:

<table>
<thead>
<tr>
<th>Score Range</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>93+ ⇒ A</td>
<td></td>
</tr>
<tr>
<td>&gt;= 90 ⇒ A−</td>
<td></td>
</tr>
<tr>
<td>&gt;= 88 ⇒ B+</td>
<td></td>
</tr>
<tr>
<td>&gt;= 83 ⇒ B</td>
<td></td>
</tr>
<tr>
<td>&gt;= 80 ⇒ B−</td>
<td></td>
</tr>
<tr>
<td>&gt;= 78 ⇒ C+</td>
<td></td>
</tr>
<tr>
<td>&gt;= 73 ⇒ C</td>
<td></td>
</tr>
<tr>
<td>&gt;= 70 ⇒ C−</td>
<td></td>
</tr>
<tr>
<td>&gt;= 63 ⇒ D+</td>
<td></td>
</tr>
<tr>
<td>&gt;= 60 ⇒ D</td>
<td></td>
</tr>
<tr>
<td>&gt;= 55 ⇒ D−</td>
<td></td>
</tr>
<tr>
<td>&lt; 55 ⇒ F</td>
<td></td>
</tr>
</tbody>
</table>

Your course grade will be determined according to the following policy:

<table>
<thead>
<tr>
<th>Topic</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework Assignments</td>
<td>30%</td>
</tr>
<tr>
<td>Attendance</td>
<td>5%</td>
</tr>
<tr>
<td>Project documentation</td>
<td>5%</td>
</tr>
<tr>
<td>Project meetings</td>
<td>10%</td>
</tr>
<tr>
<td>Project Release 1</td>
<td>13%</td>
</tr>
<tr>
<td>Project Release 2</td>
<td>17%</td>
</tr>
<tr>
<td>Project Release 3</td>
<td>20%</td>
</tr>
</tbody>
</table>

*** The instructor reserves the right to alter the above grading scheme. Any changes will be announced to the class.

Academic Accommodations
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 Accommodations, 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, response procedures and a training video posted at http://www.pugetsound.edu/emergency/. 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.