CS 480 Software Engineering
Course Syllabus – Fall 2018

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Office Hours	Tuesday and Thursday 8am - 10am; or email me for an appointment
Course Session	Tuesday and Thursday 1:00pm - 2:15pm, 163-2005
Course URL	Blackboard

Course Focus

This course offers a survey and training of software engineering (SE) techniques. The course aims to focus on the topics that are practical to software development in the industry today. In this course, you will become acquainted with the trending SE approaches, tools, skills and practices that will aid you in the ability to construct better software.

Prerequisite

You should be comfortable writing code in Java. In addition, if you have not had the equivalent prerequisite of CS 2400, you are advised to take them first.

Textbooks

No textbook is required. All the key course content will be documented in slides, which will be available in the course website after each lecture.

Course Work

Team Project. Students will be divided into teams (4-5 students per team) in the beginning of the course and work on a course project through the course. The project will be based on a web service application (the project idea will be determined by each team). The project will be published and demonstrated in class at the end of the course.

Assignments. In order to better evaluate the progress of the course project, 10 homework assignments will be given during this course as 10 project milestones (all the assignments contribute to your project, rather than being unrelated course work). The 10 assignments are designed to cover the key topics of

this course, which allow you to practice the techniques demonstrated in the course and reflect on their effectiveness. By doing the assignments, you will experience and practice the important SE theories, principles, tools, and methods, which is very similar to the common work you are expected to accomplish as a software engineer in the software industry today.

Final Exam. The final exam will be a reflection on the course project you have done with your team. It is an open exam to help me understand your role and contribution in the project, rather than a technical exam.

Grade Determination

The weights for grades are as follows:

- Assignments (50%)
- Project (45%)
- Final Exam (5%)

Final grades will break at 90(A), 85 (B+), 80(B), 75 (C+), 70(C), 65, (D+), 60(D).

Honor Statement

Each student is to do his or her own work. This means that you are not to seek out the help of other students (or give help, if asked) in order to solve specific problems of your homework assignments. It also means that you should not sign up for mailing lists and ask for detailed help from others on the Internet. Of course, you may discuss generalities about an assignment with your fellow students. If you are unsure of what is permitted, in terms of discussing an assignment problem, please ask me for clarification.

Disabilities

If you have any disability that would put you at a disadvantage in performing an assignment, please meet with me privately to discuss ways in which I can assist you as you perform the required work in this course.

Tardiness

You are expected to arrive on time so that you do not cause a disruption in the middle of class. I would like to start the class at the scheduled time. If you cannot make it on time for some reason, please let me know. Persistent tardiness will be noted.

Tentative Schedule

This schedule and the order of the topics/assignments are subject to change.

Week	Day	Date	Topic
1	Thu.	8/23	Course Introduction
2	Tue.	8/28	Requirement Analysis
2	Thu.	8/30	Web Service Basic I
3	Tue.	9/4	Web Service Basic II
3	Thu.	9/6	Team Idea Pitch
4	Tue.	9/11	User Interface and User Experience
4	Thu.	9/13	Version Control - Introduction to Git
5	Tue.	9/18	Build Automation - Maven
5	Thu.	9/20	Introduction to Scrum
6	Tue.	9/25	Scrum: User Stories and Task Estimation
6	Thu.	9/27	Unit Test - jUnit
7	Tue.	10/2	Maven + jUnit + Test Coverage
7	Thu.	10/4	Code Review
8	Tue.	10/9	Software Deployment
8	Thu.	10/11	Continuous Integration
9	Tue.	10/16	Docker Container
9	Thu.	10/18	Software Design Principles I
10	Tue.	10/23	Software Design Principles II
10	Thu.	10/25	Clean Code I
11	Tue.	10/30	Clean Code II
11	Thu.	11/1	Software Maintenance I
12	Tue.	11/6	Software Maintenance II
12	Thu.	11/8	Software Scalability I
13	Tue.	11/13	Software Scalability II

13	Thu.	11/15	Test-Driven Development
14	Tue.	11/20	Software Publishing and Demo
14	Thu.	11/22	No Class - Thanksgiving Day
15	Tue.	11/27	Project Demo - I
15	Thu.	11/29	Project Demo - II
16	Tue.	12/4	Tech Interviews Explained
16	Thu.	12/6	Course Summary