CSCI 462
Software Engineering Practicum

Department of Computer Science - College of Charleston

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Office Hours	4–5PM Tues or by appointment	***Class Time***	Tu 5:00-7:30PM HW East, Room 302

Course Description

CSCI 462 Software Engineering Practicum - This course provides hands-on experience in the practice of agile/ scrum software development. Student scrum teams utilize development tools and techniques to implement software solutions to moderately complex problems. This project-based component provides a framework in which students gain both understanding and insight into the application of agile software engineering principles.

Prerequisites: CSCI 230 and either CSCI 360 or CSCI 362

Student Learning Outcomes

Upon successful completion of the course, students will:

1. Understand the agile mindset, values, and principles.
2. Understand the scrum values, roles, and ceremonies.
3. Gain in-depth knowledge and experience from learning to participate in, and successfully contribute to an agile programming project using **Scrum** methodology.
4. Present in-person reports of project progress, which includes Daily Scrum meetings and midterm/final presentations.
5. Produce a short video that describes and promotes their team project and the experience.
6. Produce a detailed Software Requirements Specification (SRS) document.

~~Tentative~~ Agile Schedule (Subject to Change)

Topics	Week
Introductions. Expectations of the course. Industry Project presentations (part 1)	January 14
Industry Project presentations (part 2) Students submit industry project preferences (final projects/teams assigned by end of week)	January 21
Introduction to Agile/Scrum	January 28
MVP, Story Sizing and Tasking	February 4
Release and Sprint Planning	February 11
The Retrospective	February 18
Midterm Presentations (pt 1) *Scrum Master rotation*	February 25
Midterm Presentations (pt 2)	March 3
SPRING BREAK	March 17
Testing and Test Driven Development	March 24
Managing for the Right Outcome *Scrum Master rotation*	March 31
Who Cares about Happiness?	April 7
Kanban, Scrumban, SAFe Parking Lot Cleanup	April 14
Harbor Walk After 5 Event	April 21

Specifics about <u>this</u> section of CSCI 462

1. Team projects will be provided by industry representatives/partners.
2. Your success in this course depends on your ability to work well with team members inside <u>and outside</u> of class to produce a **working software** solution to the industry project. It also depends on your ability to learn new technologies with **very little hand holding** from the instructor. This course tries to mimic a real-world Scrum development team. How you plan and execute your project timeline is crucial.
3. The instructor of this course acts as the overseeing project manager or executive for all the projects, helps represent and interact with the client (industry partner), and resolve project impediments.
4. Each team has a scrum master who rotates off of that role after about a month. Each team member will have the opportunity to be scrum master.

    a. As scrum master, you manage your team to ensure they are motivated and have everything they need to accomplish the work. You're responsible for project and release backlogs/user-stories, and burndown chart/velocity. Work with the instructor to resolve impediments, set release dates, sprints, and facilitate Daily Scrum meetings. With the small size of teams, scrum masters will still have to code, test, etc.
5. Each team will perform a Daily Scrum meeting in front of the professor during class time. Based on your performance that week, you will get a graded progress report. If you miss a class, your progress report grade will be 0%. The average of all your progress reports represent 30% of your final grade.
6. The midterm and final presentations each count as 25% of your final grade. These presentations cannot be missed and cannot be made up!
7. The final documentation for the project includes a **detailed** software requirements specification template.
8. Your team must create a 2-3 minute video demonstration that documents and shows off your project/experience.

Final Grade Computation

Scrum/Work Performance (avg of weekly progress reports)	30%
Midterm Presentation	25%
Final Presentation	25%
2-3 minute video demonstration	10%
Final SRS Documentation	10%

Grading Scale

A	90-100
B+	85-89
B	80-84
C+	75-79
C	70-74
D+	65-69
D	60-64
F	0-59

Any student who feels that he or she may need an accommodation due to a disability should speak to me individually to discuss your specific needs. For additional help please contact the College of Charleston Center for Disability services at `http://www.cofc.edu/~cds/`.