CS 493 Software Engineering I Syllabus - Fall 2017

Catalog Description

This course will cover the theory behind software development. Topics covered include software architecture, requirements analysis, prototyping, and project management tools. These topics are critical to the success of the student senior capstone projects. Prerequisite: Senior standing (90 or more completed credits), declared CS major, and one 400 level CS course with a minimum grade of C taken at Pacific. 2 credits.

The focus of CS 493 is the Planning and Design of your Senior Capstone project. The major product for this semester will be your requirements document, schedule, and project prototype. You will not begin coding on your project until around week 8 of the semester.

Learning Outcomes

The following are the course specific learning outcomes:

Upon completion of the course, students should be able to

- develop a high quality software system while working in a project group.
- apply a range of design and development principles in the construction of a software system.
- convey technical material through oral presentation and interaction with an audience.
- convey technical material through written reports which satisfy accepted standards for writing style.

This course also provides the following learning outcomes for the *CS* major or program:

- Apply knowledge through the design and implementation of a large scale computer application.
- Be able to communicate in a collaborative environment, present ideas, and document work at all stages of software development.
- Identify the skills necessary to become a lifelong learner in the rapidly changing field of Computer Science.

Instructor Details

| Professor: | Shereen Khoja | | | |
|---------------|----------------------|--|--|--|
| Email: | shereen@pacificu.edu | | | |
| Office: | Strain 203C | | | |
| Office Hours: | M 2:15pm - 3:15pm | | | |
| | T 9:45am – 10:45am | | | |
| | Th 2:00pm – 3:00pm | | | |
| | or by appointment | | | |

Course Details

| Course Title: | CS493 Software Engineering I | | | | |
|----------------|--------------------------------------------------------------------------|--|--|--|--|
| Prerequisite: | Senior standing, declared CS major, 400-level CS course with C or better | | | | |
| Required for: | Graduation | | | | |
| Meeting Times: | TTh 1 – 1:50pm | | | | |

| Location: | Strain 101 |
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| Textbooks: | None |

Course Website

http://zeus.cs.pacificu.edu/shereen/cs493f17/

Course Assessment

As a general rule of thumb, students are expected to spend 2 hours outside of class for each hour of class time. This means that you should be spending 8 hours per week outside of class on the readings, projects, and homework. At least 1 hour a week should be spent on non-assignment based studying

Grade Distribution

| Planning documentation | | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--|--|--|--|
| Background research, supporting documentation, and bibliography – 20% Project proposal – 20% Description of user stories – 20% Project report – 20% Elevator pitch, abstract, and other small assignments – 20% | | | | | |
| Design and implementation | 30% | | | | |
| Project prototype – 15% Demos of user stories – 15% | 200/ | | | | |
| In-class discussions and demos | 20% | | | | |
| Practice presentation – 5% Final project progress presentation – 5% Topic lead – 5% Class participation and attendance 5% | | | | | |
| Project management | | | | | |
| Use of scrum software – 3% Scrum master role – 4% Timely completion of user stories - 3% | | | | | |

Grading Breakdown

| | | 92- | Α | 90- | A- |
|--------|----|--------|---|-----|----|
| | | 100 | | 92 | |
| | | % | | % | |
| 88-90% | B+ | 82-88% | В | 80- | B- |
| | | | | 82 | |
| | | | | % | |

| 78-80% | C+ | 72-78% | С | 70- 72 % | C- |
|--------|----|--------|---|----------------|----|
| 68-70% | D+ | 60-68% | D | | |
| | | 0-60% | F | | |

Important Dates

No Class:

Monday, September 4, 2017 (Labor Day)
Friday, October 6, 2017 (Fall Break)
Wednesday, November 22, 2017 through Sunday, November 26, 2017 (Thanksgiving)

Reading Day:

Wednesday, December 6, 2017

Date of Final:

Monday, December 11, 2017, 3-5:30pm

Campus Calendar:

http://pacificu.edu/calendar/

Policies

- 1. Attendance at every class is critical to your success in this course. I expect you to be on time and ready to go once it is 1pm and that you stay until the end of class. Any missed lecture is your responsibility to make up. Much of this class involves students leading lectures, peer-review of documents and code, and group exercises. It is vital that each student be prepared and on-time for each class meeting.
- 2. Assignments are to be turned in by 1pm on the day they are due unless otherwise specified. Absolutely no late assignments will be accepted. Some of the due dates for assignments will be set by your professor, others will be determined by your schedule. In either case, you are responsible for making your deadlines. More details and policies for setting your schedule will be discussed in class. Most assignments will need to be turned in electronically and as hard copy.
- 3. If you are scheduled to lead a discussion or make a presentation, you must be in class. No exceptions. You must participate in all class discussions.
- 4. The format of this class will not be a traditional lecture. I will expect you to participate and come to class prepared to talk about your project. Also, you will be expected to work independently. I will provide you with access to information, but many times you will be required to learn it on your own.
- 5. Pacific University has no tolerance for academic dishonesty. It is university policy that all acts of academic dishonesty be reported to the Assistant/Associate Dean. Sanctions that may be imposed for academic dishonesty range from an "F" for the assignment, an "F" for the course, and suspension or dismissal from the university. Forms of academic dishonesty include, but are not limited to, plagiarism, fabrication, cheating, tampering with grades, forging signatures, and using electronic information resources in violation of acceptable use policies. Plagiarism is the use of someone else's words, ideas, or data without proper documentation or acknowledgment; it may entail self-plagiarism, i.e. reusing/resubmitting your own work without approval. Any use of third party libraries or code must be properly cited and receive prior approval from the instructor. Quotations must be clearly marked, and sources of information must be clearly indicated in all student work. Please consult the Academic Conduct Policies in the A&S Catalog and your instructor if you have questions.

- 6. Pacific University IP Policy http://www.pacificu.edu/system/files/forms/2011IntellectualPropertyPolicy_FS_UC_Approved _0.pdf
- 7. Neither computer failure, software failure, nor lack of computer access are accepted as excuses for late assignments; therefore, start work on the assignments as soon as they are assigned, and don't put them off until the last minute. Further, corruption of programs due to bad disk media is also not accepted as an excuse for late programs; therefore, always keep a current backup of all programs on a separate disk. Please note that the Computer Science lab machines are not backed up.
- 8. I reserve the right to raise or lower your grade based on class participation and attendance. Specifically, I may lower your grade or may officially withdraw you from the course through the tenth week of the semester for poor attendance or participation. Further, your final grade may be lowered by 1/3 of a grade for each day (or portion thereof) of class missed. Please notify me PRIOR to class if you must miss class for any reason. Just sending an email prior to missing class does not guarantee you will be cleared to miss. Only legitimate reasons will be accepted as excuses for missing class.
- 9. No project may be work for which you receive any restitution, whether it be money or credit for another class.
- 10. No exams will be given in this class.
- 11. You may be asked to leave the classroom if you are causing a distraction e.g. cell phone ringing, talking, etc.
- 12. If you have a complaint regarding a grade on an assignment or exam, write a one paragraph description of why you feel the grade is incorrect and deliver it to the instructor within five working days (M-F are considered working days) of when the graded material was returned to you. I will not consider any grade changes later than five working days after the graded material was returned.
- 13. If you have documented challenges that will impede your learning in any way, please contact our LSS office in Scott Hall (ext.2107). The Director will meet with students, review the documentation of their disabilities, and discuss the services that Pacific offers and any appropriate ADA accommodations for specific courses.
- 14. Professionalism is a large part of this course. This includes writing skills, time management, self motivation to research necessary topics on your own, the ability to receive and provide constructive criticism, as well as personal appearance and hygiene. For any presentation you are required to make for this class, you are required to wear Business Casual attire. http://www.wikihow.com/Dress-Business-Casual