CSC 331/631
Software Engineering
MWF 2:00 - 2:50pm, Spring 2017, Manchester 024

Instructor
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course web: http://www.cs.wfu.edu/~pauca/CSC331_631.html

Course
Textbook:
Software Engineering, 9th Edition by I. Sommerville (suggested)
Javascript: The Good Parts by D. Crockford (suggested)

Grading: 5 quizzes ........................ 20%
4 project iterations ........... 68%
Poster review & presentation 5%
Customer exit interview ...... 5%
2 screencasts .................... 2%

Graduate students registered in CSC 631 will be expected to do review of a software engineering paper assigned by the instructor.

Topics Covered
- Software process models
- Agile development
- Javascript and version control
- Prototyping
- Test-driven development
- Behavior-driven development
- Software architecture
- Design patterns
- Refactoring
- Requirements engineering
- UML modeling
- Unified software process

Course Organization: This course is a hands-on introduction to fundamental topics in software engineering. It follows roughly the teaching philosophy underlying engineering software as a service developed by professor Armando Fox at Berkeley.
As such, the course emphasizes web application development using Node.js and Javascript (instead of Ruby on Rails), agile processes and collaboration via Pivotal Tracker, automated code review, cloud hosting via Heroku, and interaction with real customers in our local community.

Project: The project is the main avenue for learning software engineering concepts. We will form groups of 4 or 5 people and work with customers in our local community throughout the semester. Student teams are expected to be fully engaged in the process and all members are expected to contribute a roughly equal share. The project will take place in four iterations. The goal of the multiple iterations is to grade progress being made, the process, as well as the deliverables.

Quizzes: There will be 5 short quizzes spread out through the semester based primarily on material presented in the lectures. Specific dates are shown in the tentative course schedule in the course website. A make-up quiz will be administered only under exceptional circumstances.

Poster review & presentation: Poster presentations will be done on the day scheduled by the university for final exams. For us, this is May 2 at 2pm. Groups will be required to do a brief review of their posters the week prior to the poster presentations. Customers, and other people external to the course will be invited to the poster presentations.

Customer exit interviews: Customers will be briefly interviewed in person by the instructor to get their feedback relative to performance of each team. This will take place sometime after the poster presentations.

Screencasts: Students will be required to produce short videos of their interviews with the customer. This does not require any fancy equipment. Phone cameras and simple video editing will suffice.

Academic Integrity: Group assignments require collaboration as well as online research. Students are expected to carry their own weight in group work and behave professionally in all group meetings and customer meetings. While groups are expected to use online material, copying of partial or complete work without properly reference to the author will not be tolerated.

Special Needs: If you have a disability that may require an accommodation for taking this course, then please inform Professor Pauca and contact the Learning Assistance Center (758-5929) within the first two weeks of the semester.

Course Plan in the Event of Closure of the University: In the event that the University closes due to pandemic or other disaster, the course will be continued through the internet or by postal mail, if the former is not available. Professor Pauca will distribute class notes, weekly lab material, and homework through the course webpage [www.cs.wfu.edu/~pauca/CSC331_631.html] or by postal mail in the case of internet service failure. Class notes will contain extensive lecture material as well as short exercises designed to test the students comprehension of the material. Office hours will be held through the internet using Webex. Students will be required to turn in assignments electronically or by postal mail. Examinations
will be distributed by internet, email, or postal mail, as needed. Return date and
time for examinations will be clearly specified. In addition Professor Pauca will be
accessible by email through any of the following addresses: paucavp@wfu.edu and
paulpauca@gmail.com.