San José State University Computer Science Department CS160, Software Engineering, Section 4 and 5, Spring 2017

Course and Contact Information

Instructor: Fain (Frank) Butt

Office Location: DH282

Telephone: (408) 924-5060

Email: Frank.Butt@sjsu.edu

Office Hours: TR 7:15 PM – 8:30 PM (by appointment)

Class Days/Time: Section 4: TR 4:30 - 5:45 PM

Section 5: TR 6:00 - 7:15 PM

Classroom: SCI311

Prerequisites: Prerequisite: CS 146, CS 151 (with a grade of "C-" or better in

each); CS 100W (with a grade of "C" or better)

Course Format

All your programming project deliverable must be able to compile and run before packaging for submission. Otherwise you will not earn many points if we can't verify your results. You are expected to spend 15-20 hours a week on homework and/or project.

Faculty Web Page and MYSJSU Messaging

Course syllabus and the rest of the course information will be published via Canvas. You are responsible for regularly checking with the messaging system through MySJSU and Canvas to learn of any updates.

Course Description

Software engineering principles, requirements elicitation and analysis, design, configuration management, quality control, project planning, social and ethical issues. Required team-based software development, including written requirements specification and design documentation, oral presentation, and tool use.

Course Learning Outcomes (CLO)

Upon successful completion of this course, students will be able to:

- 1. CLO 1 Design and build a project from end to end
- 2. CLO 2 Write a Requirement Document
- 3. CLO 3 Write High-level and low-level designs
- 4. CLO 4 Iterative Implementation
- 5. CLO 5 Understanding Different Stages of Quality Assurance
- 6. CLO 6 Install, Packaging, Configuration, and Support
- 7. CLO 7 Work in a team project which follows the steps of Agile SW Engineering Methodology.

- 8. CLO 8 Produce the necessary documents for different steps of the development process.
- 9. CLO 9 Perform design, development, and QA for a sizable team project.

Textbook

Facts and Fallacies of Software Engineering; Robert L. Glass (ISBN 0-321-11742-5)

Succeeding with Agile; Mike Cohn (ISBN 0-321-57936-4)

Other Readings [Optional]

None

Other equipment / material requirements (include if applicable)

Additional Lecture Slides and class material is provided

Course Requirements and Assignments

SJSU classes are designed such that in order to be successful, it is expected that students will spend a minimum of forty-five hours for each unit of credit (normally three hours per unit per week), including preparing for class, participating in course activities, completing assignments, and so on. More details about student workload can be found in <u>University Policy S12-3</u> at http://www.sjsu.edu/senate/docs/S12-3.pdf.

There will be two exams, one group project, several homework and quizzes. All the exams and quizzes will be open book and open notes unless noted. There will be no laptops, or any personal digital devices allowed. I strongly suggest that you attend each class and take good notes during the semester. There will be <u>NO</u> make-up exams and quizzes.

All programming portions of the project, and its related documentations must be handed in electronically. Programs that are handed in after the due date will not be accepted. Additional information about each project will be given in separate handouts. Your project must be able to compile and execute before you turned it in.

NOTE that <u>University policy F69-24</u> at http://www.sjsu.edu/senate/docs/F69-24.pdf states that "Students should attend all meetings of their classes, not only because they are responsible for material discussed therein, but because active participation is frequently essential to insure maximum benefit for all members of the class. Attendance per se shall not be used as a criterion for grading."

Grading Policy

| Final Exam | 200 points | 20% |
|---------------|-------------|------|
| Midterm Exam | 200 points | 20% |
| Quizzes & HW | 100 points | 10% |
| Group Project | 500 points | 50% |
| Total | 1000 points | 100% |

The final "letter" grade will be determined from a curve at the end of the semester. Any assignment that are submitted past the due date will incur a minimum of 20% deduction.

Note that "All students have the right, within a reasonable time, to know their academic scores, to review their grade-dependent work, and to be provided with explanations for the determination of their course grades." See University Policy F13-1 at http://www.sjsu.edu/senate/docs/F13-1.pdf for more details.

Classroom Protocol

There will be no lecture notes given out. It is to your best interests to attend class and take good notes. You must turn off any cell phone ringer at the beginning of each class!

University Policies

Per University Policy S16-9, university-wide policy information relevant to all courses, such as academic integrity, accommodations, etc. will be available on Office of Graduate and Undergraduate Programs' Syllabus Information web page at http://www.sjsu.edu/gup/syllabusinfo/

CS160, Software Engineering, Section 4 & 5, Spring 2017, Course Schedule (subject to change)

| Event | Date | Class Time | Topics, Readings, Assignments, Deadlines |
|------------|--------------------------|--|--|
| First Day | 01/26/2017 | Sec 4: 4:30 – 5:45PM Sec 5: 6:00 – 7:15PM | Introduction and Overview |
| Week 1 | 01/31/2017 | cc | Waterfall Development Process Model; F&F Chapter 1, 2 |
| Week 2 | 02/07/2017 | cc | F&F Chapter 2 - 7 |
| Week 3 | 02/14/2017 | | Project Kickoff, Groups are formed; |
| Week 4 | 02/21/2017 | cc | Agile Chapter 1 - 3 |
| Week 5 | 02/28/2017 | | Agile Chapter 4 – 7; Scrum Meetings & Checkpoints |
| Week 6 | 03/07/2017 | cc | Agile Chapter 8 – 1; Scrum Meetings & Checkpoints |
| Week 7 | 03/14/2017 | | Agile Chapter 12 – 16; Scrum Meetings & Checkpoints |
| Week 8 | 03/21/2017 | cc | Midterm on 03/21/16 cover F&F, Agile up to Chapter 11; Scrum Meetings & Checkpoints |
| Week 9 | 03/28/2017 | | SPRING BREAK |
| Week 10 | 04/04/2017 | | Scrum Meetings & Checkpoints |
| Week 11 | 04/11/2017 | cc | Agile Chapter 17 – 19; Scrum Meetings & Checkpoints |
| Week 12 | 04/18/2017 | | Scrum Meetings & Checkpoints |
| Week 13 | 04/25/2017 | cc | Agile Chapter 20 – 22; |
| Week 14 | 05/02/2017 | ، د د | Project Presentations; Scrum Meetings & Checkpoints |
| Week 15 | 05/09/2017 | cc | Final deliverables |
| Last Day | 05/16/2017 | cc | Exam Review; |
| Final Exam | 05/24/2017 05/23/2017 | Sec 4: 2:45 – 5:00PM Sec 5: 5:15 – 7:30PM | Covers some F&F content and mainly the Agile book; Project related questions |