San José State University
Computer Science Department
CS 161, Software Project, Section 01, Spring 2018

Course and Contact Information

Instructor:	Jahan Ghofraniha
Office Location:	DH 282
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Office Hours:	Tue-Thr 1:30 – 3:00 pm
Class Days/Time:	Tue- Thurs /12:00 – 1:15 pm
Classroom:	DH 450
Prerequisites:	CS 160 (with a grade of "C-" or better) or instructor consent. Computer Science and Software Engineering Majors only.
Course Format	On-campus, face to face

Course Description

A substantial project based on material from an advanced area of computer science. Includes lectures on the project topic and on the testing and maintenance of software systems. At least 50% of the course grade to be based on the project.

Course Learning Outcomes (CLO)

Upon completion of this course, a student will be able to:

- Analyze requirements, design, implement and test a software project according to formal software engineering procedures.
- Break down a software project into multiple small tasks and assignment to team members on weekly basis.
- Provide progress update on the state of the project and resolve software product cycle issues.
- Work in a team environment and resolve group dynamics issues.
- Present results of the project in a formal manner.
- Perform basic data analysis on streaming or imported data from a database in the context of an end to end machine learning project.

Required Texts/Readings

Textbook

An Introduction to Statistical Learning: with Applications in R

by Gareth James, Daniela Witten, Trevor Hastie, Robert Tibshirani
Series: Springer Texts in Statistics (Book 103)
Hardcover: 426 pages
Publisher: Springer; 1st ed. 2013, Corr. 7th printing 2017 edition (September 1, 2017)
Language: English
ISBN-10: 1461471370
ISBN-13: 978-1461471370

Other Readings

Other readings will be occasionally assigned from articles and journals. The links will be provided on Canvas.

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 University Policy S12-3 at http://www.sjsu.edu/senate/docs/S12-3.pdf. Note that University policy F15-12 at http://www.sjsu.edu/senate/docs/F15-12.pdf states that "Attendance shall not be used as a criterion for grading."…
"Students are expected to attend all meetings for the courses in which they are enrolled as they are responsible for material discussed therein, and active participation is frequently essential to ensure maximum benefit to all class members. In some cases, attendance is fundamental to course objectives; for example, students may be required to interact with others in the class. Attendance is the responsibility of the student."… "Participation may be used as a criterion for grading when the parameters and their evaluation are clearly defined in the course syllabus and the percentage of the overall grade is stated."

Assignments

The assignments are to be submitted on time. A penalty of 10% per day is applied to late submissions. No assignments will be accepted after a week past its due date.

Exams

- The exams are based on lectures, homework/lab assignments, and reading materials covered before the exam's date.
- Absolutely NO items may be shared during the exams, including books, notes, and calculators.
- Absolutely NO usage of cell phones during exams. Cell Phones must in off or silent mode and not within your reach.

Makeup exams will only be granted in case of documented medical emergency with an advanced notice to the instructor. If a student misses and exam without a legitimate excuse, a grade of zero will be recorded.

Grading Policy

Your individual grade will be weighted as follows:

- Project proposal 5%
- Requirement analysis document 10%
- Functional specs document 10%
- Test plan and verification doc 10%
- Weekly project update 15%
- Exams (midterm + final) 30%
- Final project presentation & report 20%
- Bonus for the best class project 10%

Total (including the bonus grade) 110%

A -- 90-100, B -- 80-89, C -- 70-79, D -- 60-69, F -- Below 60

Classroom Protocol

All students are expected to be on time, each team will present their weekly update in 5 minutes in scrum meeting format. The second lecture is used to teach content related to data analysis and machine learning.

Use of cell phone during the lecture is not allowed. If you need to answer an emergency call, please leave the class quietly and answer your call outside the 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/"

CS161 / Software Project, Spring 2018, Course Schedule

List the agenda for the semester including when and where the final exam will be held. Indicate the schedule is subject to change with fair notice and how the notice will be made available.

Course Schedule

Week	Date	Topics, Readings, Assignments, Deadlines
1	1/25/18	Introduction, class policy and syllabus
1	1/30/18	Team formation, agile project management tools, project proposal deadline
2	2/1/18	Introduction to Machine learning (content lecture)
2	2/6/18	Team announcement, team proposal evaluation and proposal due date, review of task assignment, user stories and issue tracking
3	2/8/18	ML lecture (content lecture)
3	2/13/18	Project update from teams, evaluation of project progress and grading
4	2/15/18	ML lecture (content lecture)
4	2/20/18	Project update from teams, evaluation of project progress and grading
5	2/22/18	ML lecture (content lecture)
5	2/27/18	Project update from teams, evaluation of project progress and grading
6	3/1/18	ML lecture (content lecture)
6	3/6/18	Project update from teams, evaluation of project progress and grading
7	3/8/18	Midterm exam on content (15%)
7	3/13/18	Project update from teams, evaluation of project progress and grading
8	3/15/18	ML lecture (content lecture)
8	3/20/18	Project update from teams, evaluation of project progress and grading
9	3/22/18	ML lecture (content lecture)
9	3/27/18	Spring break, No Class
10	3/29/18	Spring break, No Class
10	4/3/18	Project update from teams, evaluation of project progress and grading
11	4/5/18	ML lecture (content lecture)
11	4/10/18	Project update from teams, evaluation of project progress and grading
12	4/12/18	ML lecture (content lecture)
12	4/17/18	Project update from teams, evaluation of project progress and grading
13	4/19/18	ML lecture (content lecture)

Week	Date	Topics, Readings, Assignments, Deadlines
13	4/24/18	Project update from teams, evaluation of project progress and grading
14	4/26/18	ML lecture (content lecture)
14	5/1/18	Final project presentations
15	5/3/18	Final project presentations
15	5/8/18	Final project presentations
16	5/10/18	Final project presentations and announcement of the best project
Final Exam	5/17/18, Thursday	09:45-12:00 DH 450