CECS 491B: Senior Project
Course Syllabus – Spring 2019

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Office Hours: MW 8:00PM - 8:30PM

Course Objective

491A. Software Engineering Project I (3)

Prerequisites: CECS 323, CECS 343 and ENGR 350, all with a grade of "C" or better.
First course in a two-course capstone design sequence that fulfills integrative learning. Design of a commercial grade software application including requirements analysis, functional, architectural and detailed design, emphasizing written communication, teamwork and the Object-Oriented Methodology.
Letter grade only (A-F), (Lecture 2 hours, laboratory 3 hours)

491B. Software Engineering Project II (3)

Prerequisite: CECS 491A with a grade "C" or better.
Second course in a two-course capstone design sequence that fulfills integrative learning. Implementation, testing, packaging and deployment of the system designed in CECS 491A emphasizing written communication, teamwork and the Object-Oriented Methodology.
Letter grade only (A-F). (Lecture 2 hours, laboratory 3 hours)

Recommended Text (Not Required)

Design Patterns: Elements of Reusable Object-Oriented Software
By Erich Gamma, Richard Helm, Ralph Johnson, & John Vlissides

Course Requirements*

Item	Points	Total Points
Sprint Reviews x3	100	300
Code Review x3	TBD	300
Quiz	100	100
Presentation	100	100
Misc	TBD	TBD

* The instructor reserves the right to alter the course in any manner in order to promote learning.

Grading Metrics

90%+	A
80% - 89.99%	B
70% - 79.99%	C
60% - 69.99%	D
59.99% & Below	F

Grades will follow a flat percentage rubric. Grades will NOT be based on a curve. All work must be submitted to the instructor in-person unless otherwise specified. Work submitted by another student on your behalf will not be accepted unless approved by the instructor in advance.

Absent/Make Up Policy

Absences are excused if the student presents valid documentation for being unable to attend (e.g. doctor's note, police report, volunteer activity, etc.), however, it is the instructor's discretion whether the student has provided adequate documentation. Only excused absences can submit late work defined above under course requirements. It is the responsibility of the student to arrange with the instructor how to address making up missed work if the absence was excused. If the absence is "planned", then the instructor must be notified in advance.

Definition of Done

The instructor's definition of a work item being done is as follows:

1. All requirements are met

2. All code/unit tests adheres to the course's coding standard

3. All code/unit tests must be in a readable format

4. In-line code comments are accurate, clear and concise

5. Supporting documentation is accurate, clear and concise

6. All submitted hard copies must be bounded together.

7. All submitted individual work must contain student name, student ID and date

8. All submitted team work must contain team name, team member names, team member student IDs and date

Project

Team-based semester long project consisting of five to six members depending on class size. Project details will be discussed in class.

Presentation

Each team will present their work during finals week. Bonus points distributions as follows: 1st place gets 50 points, 2nd place gets 25 points and 3rd place gets 20 points.

Sprint Reviews

Sprint reviews will be randomly performed throughout the semester. It is each team's responsibility to ensure that all team members are following Scrum and that all documentation is up to date.

Sprint Review grading criteria:

• 75% - Progress is well documented and is on track for completion

• 20% - Improvement of average velocity

• 5% - Identification of obstacles and concrete steps for resolution

Complexity Scales

Certain features are innately more complex than others, but the final implementation also determines how much effort was made to ensure a more extensible and well-tested feature. As such, each code review will be graded on a complexity scale. The more complete a solution is the more likely it will be categorized as on of the higher scale value.

• Critical - 150 points

• High - 125 points

• Medium - 75 points

• Low - 25 points

Code Review Grading Criteria:

• Completely tested through automation such as E2E tests and unit tests

• Satisfies the course's definition of done

- Design is not limited to a single implementation or only satisfying a single user story

- High performance (reduced time complexity, size complexity, etc.)

- No major security vulnerability; minor vulnerability is clearly documented and articulated during review

Exams & Quizzes

Any and all exams and quizzes are always comprehensive. Students must PRINT responses in BLACK INK PEN on a 11" x 8.5" examination booklet (aka the "blue" book). Responses that are illegible to the instructor or does not follow the aforementioned "definition of done" an automatic zero grade. Any exam will always be for grade and are always notified in advance. Quizzes can be for grade or "bonus". Quizzes can be scheduled in advance or administered randomly. Random aka pop quizzes are always "bonus". Responses to pop quizzes should only be submitted if the student has high confidence in the accuracy of their response. Any submitted response that are moderate or severely inaccurate will be given a minus grade.

Miscellaneous Work

For grade labs and/or homework may be assigned depending on if the class needs additional exercises to reinforce learning.

Cheating & Plagiarism

Cheating and plagiarism will not be tolerated in this course. Any individual caught cheating on quizzes, homework, lab projects, or the final exam will be punished to the full extent allowed under University regulations. Plagiarism on papers or assignments is not acceptable and work that is plagiarized will not receive credit. Plagiarism is considered cheating. Note: Any time another person's work is used without giving them proper credit, it is considered plagiarism and cheating. At a minimum, any student caught cheating will receive no credit for the work concerned, and will receive a reduction of one letter grade from their final course grade. The official CSULB Policy on Cheating and Plagiarism can be found here: http://web.csulb.edu/divisions/aa/catalog/current/academic_information/cheating_plagiarism.html

ADA Accommodation

Students with a disability or medical restriction who are requesting a classroom accommodation should contact the Disabled Student Services at 562-985-5401 or visit Brotman Hall, Suite

270 during 8AM-5PM weekday hours. Disabled Student Services will work with the student to identify a reasonable accommodation in partnership with appropriate academic offices and medical **providers. We encourage students to reach out to DSS as soon as possible**.

Food or Housing Assistance

Any student who is facing academic or personal challenges due to difficulty in affording groceries/food and/or lacking a safe and stable living environment is urged to contact the CSULB Student Emergency Intervention & Wellness Program. The website outlining the resources available is www.csulb.edu/basicneeds. Students can also e-mail supportingstudents@csulb.edu or call 562/985.2038. If comfortable, students may reach out to the professor as they may be able to identify additional resources.

Tentative Schedule

Date	Activity
01/23	First Day of Class
01/28	
01/30	
02/04	
02/06	
02/11	
02/13	
02/18	
02/20	
02/25	
02/27	
03/04	
03/06	
03/11	
03/13	
03/18	

Date	Event
03/20	
03/25	
03/27	
04/01	Spring Break
04/03	Spring Break
04/08	
04/10	
04/15	Quiz
04/17	
04/22	
04/24	
04/29	
05/01	
05/06	
05/08	Last Day of Class
05/13 - 05/18	Finals Week