CECS 491B: Senior Project
Course Syllabus – Spring 2021

Instructor: Vatanak Vong
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Office: Virtual
Seminar: Sa 10:00AM – 11:50AM (Virtual) – Section 15
Lab: Sa 12:00AM – 02:45 PM (Virtual) – Section 16
Office Hours: Wednesday @ 7:00PM (Virtual)

Course Objective[1]

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

Title	Author
Design Patterns: Elements of Reusable Object-Oriented Software	Erich Gamma Richard Helm Ralph Johnson John Vlissides

Grading Components**

Course Work	Total Points
Retrospective 1	100
Retrospective 2	100
Retrospective 3	100
Code Review	250
Presentation	100
Participation	100
Miscellaneous (Homework, Quizzes, Activities, etc.)	TBD*

* Miscellaneous work will range between 50 – 100 points. Total points may vary due to class needs.
** All point distribution values and course requirements are subject to change based on instructor discretion

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 percent rubric. Grades will not be based on a curve. Bonus points may be given to students for exceeding expectations. It is possible to incur negative points if a student's work is blatantly incorrect, plagiarized and/or well below the assigned minimum requirements.

Submission of Work

By default, all work must be submitted to the instructor's email no later than the designated time and date unless otherwise specified by the instructor.

Quizzes, Homework and Activities

Quizzes can be scheduled in advance as well as on demand (pop quizzes). Quizzes may be given either during lecture or during lab. Quiz duration can range from 5 minutes to an hour. Make up quizzes will be different from the original for excused absences. Homework and other activities maybe assigned for a grade if students are consistently exhibiting difficulties in understanding the material and need additional practice.

Recording Policy

In compliance with university policies and to protect student privacy, any and all recordings (audio, video, pictures, chat logs, etc.) during seminars, labs and office hours meetings are not permitted.

Late Work

All milestone late work will not be subject to an automatic penalty of 50%. Other assignments will not be accepted.

Project & Presentation

Students will still follow the Scrum methodology in order to continue with the development of their projects from 491A. Each team will present their project to the class during the day of the Final.

Code Review

Students have at most 3 chances to earn a maximum total of 250 points by submitting a feature for code review. Code reviews consist of a deep dive into the implementation of a feature. Code reviews will be graded base on the quality of the design and implementation. Factors that will be considered are maintainability, extensibility, scalability, security, reliability, testability, performance and adherence to associated requirements in the BRD. See the code review rubric document for a full criteria list. Feedback will be given on strengths and weaknesses concerning a student's object-oriented programming. Students must sign-up for a code review slot in advance in order to undergo code review.

Feature Complexity

Not all features are the same, thus the complexity of a feature is evaluated individually during a code review. The feature complexity is decided by the difficulty of the requirements and the robustness of the implementation (i.e. gold-plating). A general estimate for feature complexity is as follows:

1. High – 140 hours
2. Medium-High – 120 hours
3. Medium – 80 hours
4. Low-Medium – 60 hours
5. Low – 20 hours

Coding Standard

This course focuses on the implementation of the project and thus must meet standards set forth by the instructor. See coding standards document.

Definition of Done

1. Work must adhere to the course coding standards
2. Work must compile and run without errors
3. Work must meet all associated requirements detailed in the BRD
4. Work must have automated tests that addresses requirements
5. All automated tests must pass when executed without errors

COVID Requirements (Remote class)

- Stable internet
- Work area with minimal distractions (background noise, pets, etc.)
- Zoom with Microphone
- Slack

Course Structure and Delivery Mode[1]

This course is conducted entirely online. You will access the course material and activities on BeachBoard and are required to participate in synchronous class meetings via Zoom.

If you need technical assistance at any time during the course or need to report a problem with BeachBoard, please contact the Technology Help Desk using their online form, by phone at (562) 985-4959.

Please contact the department if you need support with access to the Internet, electronic devices, or any other issues related to remotely accessing your course.

Department Office: ECS-552

Phone: 562.985.4285

Disclaimer[1]

In the event of extraordinary circumstances beyond the University's control, the content and/or evaluation scheme in this course is subject to change.

Attendance & Participation[1]

Attendance is crucial as lectures and lab will often contain class discussions and activities. In addition, avid participation is expected from all students and will affect grades if students are not contributing in any class activity or discussion. Students engaging in any behavior that is distracting to the class in any way will forfeit ALL participation points. Such activities consist of, but not limited to discussing unrelated topics, being inattentive to the instructor/peers or doing work for another class. Students that are absent will forfeit their participation

points for any day they miss unless it is an excused absence. Review the university policy on excusable absences (https://www.csulb.edu/academic-senate/policy-statement-17-17-attendance-policy-supersedes-01-01) Attending lecture, but missing lab or vice versa will count as an absence. It is the responsibility of the student to arrange with the instructor any make up work for excused absences. Repeat tardiness will result in a 25% reduction in the student's total participation points.

Cheating & Plagiarism[1]

There is zero tolerance for cheating, plagiarism, or any other act of violation of Academic Integrity policy. Work that you submit is assumed to be original unless your source material is documented appropriately, using proper citation. Using the ideas or words of another person, even a peer, or a web site, as if it were your own, is plagiarism. Any individual or group caught cheating on homework, lab assignments, or any exam/quiz will be subjected to full extent of academic actions allowed under University regulations. At a minimum, any student caught violating Academic Integrity Policy will receive no credit for the work concerned and one grade lower letter grade. To learn more about the University policy on Cheating and Plagiarism, visit: http://catalog.csulb.edu/content.php?catoid=5&navoid=369#cheating-and-plagiarism

University Withdrawal Policy[1]

Class withdrawals during the final 3 weeks of instruction are not permitted except for a very serious and compelling reason such as accident or serious injury that is clearly beyond the student's control and the assignment of an Incomplete grade is inappropriate. Application for withdrawal from CSULB or from a class must be filed by the student online whether the student has ever attended the class or not; otherwise, the student will receive a grade of "WU" (unauthorized withdrawal) in the course. More information regarding the University guidelines on Dropping and Withdrawing at: https://www.csulb.edu/student-records/dropping-andwithdrawing

Reasonable Accommodation[1]

Online courses are required to meet ADA accessibility guidelines. Students with a disability or medical restriction who are requesting a classroom accommodation should contact the Bob Murphy Access Center (BMAC) formerly known as Disabled Student Services at http://web.csulb.edu/divisions/students/dss/ and also notify the instructor. BMAC personnel will work with the student to identify a reasonable accommodation in partnership with appropriate academic offices and medical providers. Only approved BMAC petitions will be accommodated. BMAC will be available online Monday - Friday from 8:00 am to 5:00 pm unless stated otherwise online.

Personal Assistance[1]

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. Additional resources are available via Basic Needs Program. The students can also email supportingstudents@csulb.edu, call (562)985-2038, or if comfortable, reach out to the instructors as they may be able to identify additional resources

Additional Resources[1]

There are many services on campus to help you achieve success in your courses. Links to the following services are also available in BeachBoard course homepage under "CSULB Student Resources":

- Counseling and Psychological Services http://web.csulb.edu/divisions/students/caps/
- Disabled Student Services http://web.csulb.edu/divisions/students/dss/
- Enrollment Services https://www.csulb.edu/enrollment-services

- Financial Aid https://www.csulb.edu/financial-aid
- Learning Assistance Center https://www.csulb.edu/academic-advising/the-learning-center
- Student Health Services http://web.csulb.edu/divisions/students/shs
- Tutoring at CSULB http://web.csulb.edu/divisions/students/student_resources/tutoring.html
- University Library https://www.csulb.edu/university-library
- University Writing Center https://www.csulb.edu/university-writing-center

[1] From or partially from content found in the CoE syllabus template and course catalog.

Tentative Schedule

Week	Dates	Comment		
1	JAN 19 - JAN 23	First Day of Classes (01/19)		
2	JAN 24 - JAN 30			
3	JAN 31 - FEB 06			
4	FEB 07 - FEB 13			
5	FEB 14 - FEB 20	**Retrospective**		
6	FEB 21 - FEB 27			
7	FEB 28 - MAR 06		**Code Review 1**	12
8	MAR 07 - MAR 13			
9	MAR 14 - MAR 20	**Retrospective**		
10	MAR 21 - MAR 27			
11	MAR 28 - APR 03	Spring Recess (03/29 - 04/02)	**Code Review 2**	12
12	APR 04 - APR 10			
13	APR 11 - APR 17	**Retrospective**		
14	APR 18 - APR 24			
15	APR 25 - MAY 01	Last 491B Class Meeting (05/01)	**Code Review 3**	12
16	MAY 02 - MAY 08	Last Day of Classes (05/07)	No Class	
17	MAY 10 - MAY 15	Finals (Team Presentations)		