CECS 491B: Senior Project
Course Syllabus – Spring 2023

Instructor: Vatanak Vong
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Office: TBD
Seminar: MW 06:30PM – 07:45PM
Office Hours: Mondays 7:45PM – 8:45PM (Additional office hours based on need)

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
Team Review 1	100
Team Review 2	100
Peer Review	200
Code Review	200
Assignments / Quizzes	100
Final Presentation	200

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 **using the student's campus email account** no later than the designated time and date unless otherwise specified by the instructor.

Assignments and Quizzes
Assignments and Quizzes cannot be made-up if you miss them.

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
No late work is 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 completed project to the class during the day of the Final.

Peer Review
A team member must sign off on your design by reviewing it and submitting it to the instructor during the peer review submission dates. Peer Reviews are graded based on thorough analysis of design and articulation of feedback.

Code Review
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 coding standards and completeness of requirements defined in the BRD for the feature being evaluated. 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
All code submitted must follow the coding standards. Failure to adhere to the standard will result in a 10% deduction of the final grade.

Definition of Done
When submitting final drafts of assignments, the students must meet the following level of quality in order to be eligible for full credit, otherwise will be rejected.

1. All submissions must be legible to the instructor
    a. Blurry content or handwritten drafts have high rejection rates
2. All submissions must meet all assignment guidelines
3. Source Code Submissions
    a. All submissions must compile without errors or warnings
    b. Any unhandled error during code execution (runtime) will end evaluation
    c. All submissions must include the entirety of the source code and project files
    d. All submissions must follow coding standards provided by instructor
    e. All submissions must have valid passing automated tests to source code

COVID Requirements (Remote class)

- Stable internet
- Work area with minimal distractions (background noise, pets, etc.)
- Zoom with Microphone/headset
- 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, active 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 may lose grade points. Such activities consist of, but not limited to discussing unrelated topics, being inattentive to the instructor/peers, doing work for another class, attending class late or leaving early without permission. Students that have unexcused absences may forfeit their grade points for any day they miss. Review the university policy

on excusable absences (https://www.csulb.edu/academic-senate/policy-statement-17-17-attendance-policy-supersedes-01-01)

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

Penalties of Cheating & Plagiarism

- Unable to utilize grade forgiveness (repeat delete)
- Automatic failure of the course
- Probation, suspension or expulsion

Examples of Cheating & Plagiarism

- Submitting someone else's work in any form as your own (verbatim or not)
- Using unapproved resources during the course
- Supplying solutions to any assignment/exam to other sections of the same course

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	Date	Comment
2	JAN 23	
2	JAN 25	
3	JAN 30	
3	FEB 01	
4	FEB 06	
4	FEB 08	
5	FEB 13	
5	FEB 15	
6	FEB 20	**Team Review 1**
6	FEB 22	
7	FEB 27	
7	MAR 01	
8	MAR 06	**Peer Review Submission**
8	MAR 08	
9	MAR 13	**Code Review**
9	MAR 15	**Code Review**
10	MAR 20	
10	MAR 22	
11	MAR 27	**Spring Break**
11	MAR 29	**Spring Break**
12	APR 03	
12	APR 05	
13	APR 10	

13	APR 12	
14	APR 17	**Peer Review Submission**
14	APR 19	
15	APR 24	**Code Review**
15	APR 26	**Code Review**
16	MAY 01	**Team Review 2**
16	MAY 03	**Final Presentation, Last Day of Classes (May 05)**
17	TBD	**Finals (May 08 - May 13)**