CMPS 4928 Senior Project II - Spring 2023

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Course Syllabus

CMPS 4928 Senior Project II Unified Syllabus (all sections) - Spring 2023

Instructor and Contact Information

For each instructor's contact information, see the **General section** of the Moodle course

Course Website and Meeting Times

Moodle page: https://moodle3.cs.csub.edu/course/view.php?id=101

For meeting times for each section, see the General section of the Moodle course page

General Class Structure

- First Day: Attendance required for class overview and setting up team check-in times for the remainder of the semester.
- Speaker / Informational Days: Attendance optional. These days are noted in the class schedule.
- Team Check-Ins: All team members are required to attend team check-ins with the instructor. Teams will individually schedule check-in times with the instructor. Teams should select a time where everyone on the team is available.
- Senior Design Expo: Attendance required.
- Individual Work and Team Work: Self-scheduled individual work and team work is also expected for this course. Students should plan to spend about 8 to 10 hours a week (on average) working on their Senior Project and coordinating with their team.

Contact your instructor as soon as possible if you have any issues with attending required sessions.

Note: While the Senior Project is a team project, the course grade for CMPS 4928 will depend heavily on each individual's ability to carry out their share of the team's tasks, as defined in CMPS 4910 Senior Project I, and to participate effectively on the team with good teamwork and interpersonal communication skills. Any changes in assignment of tasks from the CMPS 4910 end-of-term report should be discussed with the instructor during the team check-ins.

Catalog Description

CMPS 4928 - Senior Project II (2)

This is the completion phase of the project. Students will present a project report to the entire class, explaining the nature of the work, the finished product, and its relationship to the field. Students will demonstrate proficiency in critical thinking, information literacy, written communication, and quantitative reasoning in their written project report. Additionally, students will demonstrate an understanding of their academic pursuits by reflecting on their studies of the arts, humanities, natural sciences, behavioral sciences, and social sciences.

Prerequisites: CMPS 4910, At least 90 semester units, and GE JYDR.

Prerequisites by Topic

Senior status (90+ semester units completed)

Completion of the first course of the Senior Project sequence

Completion of most upper-division General Education requirements, particularly Junior-Year Diversity Reflection (or approved add slip by instructor)

Units and Contact Time

2 semester units. 2 units lecture (100 minutes).

<u>Type</u>

Required for CS.

Required Textbook

None.

Recommended Textbook and Other Supplemental Materials

None.

Coordinator(s)

All tenured and tenure-track Computer Science faculty members.

AY 2022/23 Coordinators are Albert Cruz, Melissa Danforth, Kanwal Kaur, and Nick Toothman.

ABET Student Learning Outcomes (SLOs)

The course maps to the following ABET Criterion 3 student learning outcomes for Computer Science (CAC/ABET):

- 2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
- 3. Communicate effectively in a variety of professional contexts.
- 4. Recognize professional responsibilities and make informed judgements in computing practice based on legal and ethical principles.
- 5. Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.
- 6-CS. Apply computer science theory and software development fundamentals to produce computing-based solutions.

General Education Student Learning Outcome Coverage

The course maps to the following Capstone GE outcomes (GE SLO Cap):

Goal 1. Students will articulate how their foundational skills, other General Education coursework, and other major and minor coursework has prepared them for their career and will help or has helped them achieve other life goals.

Outcome 1A. Students will articulate how their foundational skills and other General Education coursework has prepared them for their career and will help or has helped them achieve other life goals.

Outcome 1B. Students will articulate how their major and minor coursework has prepared them for their career and will help or has helped them achieve other life goals.

Goal 2. Students will demonstrate proficiency in critical thinking, information literacy, oral communication, written communication, and quantitative reasoning.

Outcome 2A. Students will demonstrate critical thinking, information literacy, oral communication, written communication, and quantitative reasoning skills appropriate for a bachelor degree.

Outcome 2B. Students will create and deliver an effective oral presentation in a professional manner using information and techniques appropriate for the subject and audience.

Course Activities and Student Learning Outcomes (SLOs) Mapping

CMPS 4928 is the second part of the two-semester senior design project sequence, and will complete the project implementation, emphasizing the problem analysis and problem-solving abilities. In CMPS 4910, teams looked for a problem, analyzed the problem, and applied their knowledge of computer science to propose solutions (ABET CAC SLO 1). In this class, students will do the following:

- Implementation of the project: Teams implement their final solutions and discuss their projects with the instructor and the class. The project will be completed during this semester of the course sequence. Projects MUST be implemented by the end of the semester and the grade in this course will be HEAVILY dependent on the instructor's evaluation of the implementation of the project. (ABET CAC SLOs 2 and 6-CS)
- **Teamwork**: Teams will be expected to apply appropriate teamwork skills (interpersonal communication, sharing of project duties, project timeline and milestones, assignment of tasks to individuals, completion of assigned tasks, group troubleshooting of issues, etc.), and may be asked to complete peer evaluations of teamwork skills and efforts at the end of the term, in addition to the evaluation of teamwork skills by the instructor. (ABET CAC SLO 5)
- Career seminars: The instructor may invite local professionals to give seminars during some class meeting times on specific topics in software design and implementation. There may also be additional career development opportunities outside of the scheduled class time that will be announced to the class. (ABET CAC SLO 4)

- **Progress reports**: Teams will be expected to meet with the course instructor regularly throughout the semester at established team check-in times to orally report on their progress in implementing the project. (GE SLO Cap-2; ABET CAC SLO 3)
- **Code repository**: Each team will maintain a GitHub or Git repository for their project. All commits to the repository should clearly identify the feature implementation / improvement / fix that is being added to the code base. Individual contribution to the project will be HEAVILY graded based on the contents of the code repository. (ABET CAC SLOs 2, 5, 6-CS)
- **Senior Design Expo**: Each team will prepare an entry for their project to be displayed at the Senior Design Expo in late April. Specific requirements will be posted on the course website. (GE Cap-2; ABET CAC SLO 3)
- **Final Project Deliverables**: Each team will prepare a final written report that fully documents the project, including both group and individual writing assignments. Specific report guidelines will be posted on the course website. Teams will also have to demonstrate the final, working implementation of their project. (GE-Cap 2; ABET CAC SLO 2, 3, 6-CS)
- **Reflection**: Each student will be required to complete individual written reflection assignments that combine the GE Capstone requirements with computing. (GE SLO Cap-1; ABET SLO 4)

Class Schedule

The rough weekly schedule is as follows:

| Week 1 (Friday January 27th) | Required class meeting - Term overview and setting up team check-in times |
|---------------------------------|--|
| Week 2 (Friday February 3rd) | Hold for speaker |
| Week 3 (February 6th to 10th) | Team check-ins - Update instructor on team's progress since December |
| Week 4 (Friday February 17th) | Hold for speaker |
| Week 5 (February 20th to 24th) | Team check-ins - Discuss progress on project implementation |
| Week 6 (Friday March 3rd) | Hold for speaker |
| Week 7 (March 6th to 10th) | Team check-ins - Discuss progress on project implementation |
| Week 8 (Friday March 17th) | Required class meeting - Senior Design Expo requirements and deliverables |
| Week 9 (March 20th to 24th) | Team check-ins - Focus on Senior Design Expo and progress on project implementation |
| Week 10 (Friday March 31st) | Holiday - Campus closed |
| Spring Break (April 3rd to 7th) | Holiday - Campus Closed |
| Week 11 (April 10th to 14th) | Team check-ins - Focus on Senior Design Expo and progress on project implementation Deadline for Senior Design Expo poster submissions (New deadline: Friday April 14th) |
| Week 12 (Friday April 21st) | Deadline for Senior Design Expo poster submissions |
| | Required class meeting - Discuss requirements for Final Project Deliverables |
| Week 13 (April 24th to 28th) | Senior Design Expo is likely to be scheduled in this week |
| Week 14 (May 1st to 5th) | Team check-ins - Discuss Final Project Deliverables and project implementation |
| Week 15 (May 8th to 12th) | Team check-ins - Discuss Final Project Deliverables and project implementation |
| Finals Week (Monday May 15th) | Final Project Deliverables and Peer Evaluations Due |
| | |

Note: The instructor may require further team check-ins beyond those listed above on an as-needed, team-by-team, basis. The instructor will email teams about any additional required check-ins.

Academic Integrity Policy

All work completed by the teams is expected to be done by the individual team members, or public code that is used with appropriate instructor approval and with appropriate citation and documentation. Any public code that is not appropriately documented and cited in the git repository and the reports will be considered plagiarism.

Examples of violations of the Academic Integrity policy include, but are not limited to, the following:

- Submitting junk work to give the appearance of effort. Work submitted to the team git repository should be relevant to the code, research, or documentation components of the project. Example: Submitting a substantial amount to the code base that does not contribute to a project feature.
- Submitting an iteration or copy of public code as your own work. As noted above, public code must be approved by the instructor and appropriately documented and cited. Example: Most of your contribution to your group's project is a modification of an online tutorial on web app games.
- Most of your code base has been reused from an assignment or project from another class. Example: Iterating your CMPS 3350, 3420, or 3680 project.
- Copying, paraphrasing, or quoting text in your reports or documentation without proper citation. If you need assistance with proper
 citations, the <u>Writing Resource Center</u> has resources available to help you. Example: Cutting and pasting a guide from a manufacturer
 into your software requirements.

Violations will result in consequences, either to a specific assignment grade or to the overall course grade. Lack of knowledge is not a reasonable explanation for a violation. Violations will also be reported to the Dean of Student's office: https://www.csub.edu/deanofstudents

Campus Academic Integrity Policy

Certain forms of conduct violate the university's policy of academic integrity and the student conduct code. Academic dishonesty (cheating) is a broad category of actions that use fraud and deception to improve a grade or obtain course credit. Academic dishonesty is not limited to exams alone but arises whenever students attempt to gain an unearned academic advantage. Plagiarism is claiming the published or unpublished work of someone else as your own. This includes handing in someone else's work; turning in copied or purchased compositions; using paragraphs, sentences, phrases, words, or ideas, including paraphrasing, written by another writer; or using data and/or statistics compiled by someone else as your own without giving appropriate credit to the original writer. Plagiarism also includes using your work submitted in another class without permission of your current instructor.

When a faculty member discovers a violation of the university's policy of academic integrity, the faculty member will meet with the student(s) involved and is required to notify the Dean of Students' office and detail the alleged violation, including the name(s) of the student(s) suspected, the class in which the alleged violation occurred, the circumstances of the alleged violation, and the evidence (including witnesses) supporting the allegation. The faculty member will also formally notify the student(s) suspected of violating the university's policy of academic integrity, the department chair for the course involved in the incident, and the appropriate school dean. The Dean of Students or designee will investigate; confer with the faculty member, student(s), and any witnesses identified; and review all evidence submitted by the faculty member and student(s) to impose an administrative sanction, beyond the academic penalty already placed by the faculty member. Students who perform dishonestly in this course may earn zero credit on the assignment/exam or a failing grade in the course, depending on the level of severity of the offense.

Students are expected to uphold the standards of academic integrity. Cheating in any form will not be tolerated and will result in a formal report to the University Dean of Students. You are always expected to follow the student conduct code and uphold the CSUB Guiding Principles while learning on this campus.

<u>Academic Accommodations</u>

To request academic accommodations, please contact the Office of Services for Students with Disabilities (SSD) and email your instructor an accommodations letter from the SSD Office. Policies from the SSD Office relating to accommodations, such as scheduling policies for using their testing center, must also be followed. For more information about the services and policies of the SSD Office, contact their staff by email and/or visit their website at https://www.csub.edu/ssd/

Basic Needs Assistance

If you are experiencing challenges related to basic needs, such as food insecurity, housing insecurity, or other challenges, there are resources available to you.

The campus Food Pantry, located next to the Student Union, is open and available to all students, staff, and faculty. Please visit the Food Pantry website for hours and information at https://www.csub.edu/basicneeds/food-pantry

Information about food distributions, CalFresh, and other food resources can be found at https://www.csub.edu/basicneeds/food-security. Information about food assistance at the Antelope Valley campus is at https://www.csub.edu/basicneeds/resources-students-csub-av-campus

The campus also has emergency housing available for full-time students on a first-come, first-served basis. For housing concerns, please contact Jason Watkins, Assistant Director for Basic Needs, at 654-3360 or Ashley Scott, the Assistant Director of Housing. You can find more information about housing assistance and contact information at https://www.csub.edu/basicneeds/housing-stability

More information on basic needs assistance is on the Basic Needs website: https://www.csub.edu/basicneeds

Grading Categories

The course grading categories are:

Senior Design Expo 25% (individual and group effort)

Final Project Deliverables 60% (mostly graded on individual effort)

Teamwork and Participation 10% (entirely individual effort)
Reflection Assignments 5% (entirely individual effort)

Grades are posted on Moodle. It is your responsibility to check Moodle for grades and any comments on assignments. If you believe you submitted your assignment on time but the comment field says "assignment not submitted", contact the instructor for your section.

As noted above, a working implementation of the project is expected by the end of this semester. The grade for CMPS 4928 is heavily dependent on the instructor's evaluation of the implementation of each team's project and of each individual's work on their assigned tasks for the project. The instructor will be regularly checking the team's code repository as part of the team check-ins.

Senior Design Expo

The goal of the Senior Design Expo is to showcase your team's project to the department, campus, and community. Teams will prepare a poster on their project that will be presented at the Senior Design Expo (in-person event). Specific requirements for the poster will be posted to Moodle and discussed during a mandatory class session. The team's entry in the Senior Design Expo will be evaluated using the modified communication rubrics from CMPS 4910. Each individual on the team is also expected to clearly identify to the instructor their individual contributions to the entry on the Moodle assignment for the Expo.

Final Project Deliverables

At the end of the semester, teams are required to document the final implementation of their project through a report and demonstration of the working project.

The final report will completely document the team's project and each individual's contributions to the project. The instructor will evaluate the project looking primarily at the quality of each individual's contributions, along with the complexity and completeness of the project. This will include an evaluation of the GitHub or git code repository, in additional to all required written reports.

The demonstration of the project will show all working features at the end of the semester. Instructors may require this demonstration at a team check-in during May, as a submitted video, or as a required presentation session at the end of the term. Your instructor will let you know which methodology will be used for your section.

Details for the required deliverables will be posted on Moodle and discussed at a mandatory class session in April.

Teamwork and Participation

This portion of the grade will be based on each individual's attendance at mandatory class meetings, active participation in team check-ins, submission of a peer evaluation, and the instructor's evaluation of each person's teamwork skills.

Teamwork will be evaluated based on the following rubric dimensions: Professional and collegial communication with team members and instructor, Working collaboratively with team members, Conflict resolution skills, Timely completion of assigned team duties, and Regular participation in team meetings and team check-ins with the instructor. See the teamwork assignment in the Teamwork and Participation section for the complete rubric.

Reflection Assignments

Reflection assignments are individual assignments, not team assignments. The assignments and their due dates will be posted to Moodle. Every student is responsible for completing their own reflection assignments and submitting them through Moodle.

Final Exam

There is no final exam for this class. Your submissions for the Senior Design Expo and the Final Project Deliverables will take the place of a final exam in this course.

<u>Prepared By</u>

Melissa Danforth in January 2023

Approval

Effective Spring 2023

Changelog

Mar 7, 2023: Deadline for Expo poster submission changed to April 14th based on requested lead time from Media Services for printing Expo posters

Last modified: Tuesday, March 7, 2023, 9:10 AM

Announcements

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• Help and documentation

You are logged in as Melissa Danforth (Log out) cs4928sp23

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