**CMPS 4928**

**Senior Project II**

**Instructor:** Dr. Chengwei Lei

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**Course description:** 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 and Senior status (completion of at least 90 semester units). Prerequisite or Co-requisite: GE UD Area C (PHIL 3318 for CMPS majors)**

**Text:** No textbook is required for the class.

**Final:** *There is no final exam for this class. Your end of term presentation and project progress report takes the place of the final exam.*

**Teamwork and Participation**

This portion of your grade will be based on your attendance on weeks when your team is NOT presenting, on your completion of a teamwork evaluation form, and on your participation in the team.

**Code Diaries**

Every student should maintain a code diary while working on their portion of the project. This diary should contain the highlights of the research, coding, and troubleshooting done during the term, but does not need to go into deep detail.

**Presentations**

Students will be expected to give regular oral presentations to the class throughout the term. Students will be graded individually based on their part of the team presentation. A presentation rubric will be posted on Blackboard.

**Semester Grade**

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| --- | --- | --- |
| Project Proposal | 25%  | (team report) |
| Presentations | 40%  | (based on individual presentations, and code diaries) |
| Project Progress Report | 30%  | (20% team report, 10% for individual) |
| Teamwork and Participation | 5% |  |

**Student Learning Outcomes**

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 the knowledge of computer science to propose solutions (ABET CAC 3b, 3c, 3d, 3k). 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. Teams will be expected to apply appropriate teamwork skills (project timeline and milestones, assignment of tasks to individuals, communication, etc.), and may be asked to complete peer evaluations of teamwork skills and efforts at the end of the term. (ABET CAC 3c, 3d, 3k)
* 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 3e, 3h)
* Progress reports: Orally present the progress of their projects to the class regularly throughout the term. Progress reports should present the implementation to date, any difficulties/problems faced since the last report, any solutions the team devised, and the team experiences since the last report. Team members must equally split the oral presentation time and each individual will be evaluated using the oral presentation rubric, along with the progress of the team as a whole. This will allow other students to see different projects and different solutions others used. Additionally, the other students will provide feedback and suggestions to the team. (GE Cap-2; ABET CAC 3f for oral communication)
* Project diary: Each student will write down the problem description, design, and implementation processes for their portion of the project. The diary should particularly record any problems or difficulties encountered, and possible solutions considered and/or attempted. This diary will be a portion of the final project report. (GE Cap-2; ABET CAC 3b, 3c, 3f, 3k)
* Project completion: At the end of the term, each team will present the finished project to the class and complete a final written report on the project. The presentation will be prepared by all students on the team and the presentation time will be split equally among the team. Specific project report guidelines will be given during class and will be listed on the class website. (GE Cap-2; ABET CAC 3f)
* Reflection: Each student will be required to complete written reflection assignments on the following topics:
	+ Students will be asked to reflect upon how their studies of the arts, humanities, natural sciences, social sciences, and behavioral sciences has prepared them for the professional, ethical, legal, security and social issues and responsibilities surrounding computing careers, as well as engaging in life-long learning and professional development. (GE Cap-1; ABET CAC 3e, 3h).
	+ Students will be asked to reflect upon how their major and minor coursework has prepared them for the professional, ethical, legal, security and social issues and responsibilities surrounding computing careers, as well as engaging in life-long learning and professional development. (GE Cap-1; ABET CAC 3e, 3h).

Specific requirements for this course are:

* Orally present to the class at least three times, including the final presentation at the end of the term. Each team will be assigned a regular presentation days for the term. Every member of the team is expected to present on these days.
* Participate in the Senior Design Expo in April. Teams will be required to make a poster about their project and be present at the Expo to discuss their project with the campus community. Having a working demo of the project is strongly encouraged but not required.
* CMPS - Traditional (CS track) students: Complete the Major Field Test in Computer Science. The testing sessions for both sections of the course will be arranged in late April or early May. CIS and IS tracks do not have to take the Major Field Test.
* Write a final project report that fully documents the code for the project. This report will consist of three parts: an executive summary, a detailed code description, and invidual code diaries.
* Write a personal code diary that documents what each member of the team is doing for the project on a week-by-week basis.
* Participate in class meetings and other mandatory class activities.
* Complete teamwork evaluations.

 **Semester Mark**

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| --- | --- |
| **Semester Grade**  | **Semester Mark**  |
| 90 – 100  | A  |
| 80 – 89  | B  |
| 70 – 79  | C  |
| 60 – 69  | D  |
| 0 - 59  | F  |