CSE 593 Applied Project

for Master of Science Engineering/Engineering Science
Concentration in Software Engineering

Course Information

Course Catalog Description

Preparation of a supervised applied project that is a graduation requirement in some professional majors.

Course Information

All students admitted to the M.S.E. program in engineering science with a concentration in software engineering must complete a culminating experience. The culminating experience can be fulfilled with an applied project (CSE593) or a portfolio. The applied project entails working with a faculty member and completing a self-identified project (ex: research proposal, development project). The portfolio is a written summary and program reflection on learning outcomes supported with projects completed in a series of three courses. For more information, please refer to GOEE Website http://cpd.asu.edu/programs/msese, or to the GOEE Graduate Student Handbook: https://goee.asu.edu/sites/default/files/goee-graduate-handbook.pdf

CSE593 is the Software Engineering "capstone" course. This course is intended for students who have already completed at least 8 of the courses for the degree requirements. An applied project is meant to be about as much work as a normal 3-hour course, i.e., around 120 to 150 hours of effort. The project will involve your application of what you have learned to some sort of practical project. The project can be related to student's work and can be student's own project that a student always want to do. A student must work with one of program faculty members on defining the specifics of the project. The faculty member (project advisor) will then work with the student during the semester as the student completes the work and eventually produces the deliverables for evaluation at the end of the semester.

Ideally, a student can choose a project that is related to his/her work, so that the student can apply the skills acquired in the degree program to the work and to solve a real-world problem. If a student does not have an adequate project at work, a "Home Improvement" project is acceptable. A "Home Improvement" project is a project that a student always wanted to do, but did not have time to do.

Course Instructor / Project Advisor

If you are ready for this course, please find the instructor (project advisor) whose areas best match with your intended project.
The faculty members who have regularly advised CSE593 projects are:

- Dr. Janaka Balasooriya <jbalasoo@asu.edu> (Areas: Mobile computing and software testing)
- Dr. Yinong Chen <yinong@asu.edu> (Areas: Service-oriented computing, IoT, robotics, and computer science education)
- Dr. James Collofello <JAMES.COLLOFELLO@asu.edu> (Areas: Software engineering and software testing)
- Dr. Hessam Sarjoughian <hessam.sarjoughian@asu.edu> (Areas: Software engineering, modeling and simulation)
- Dr. Yoshihiro Kobayashi <ykobaya@asu.edu> (Areas: Gaming and game development)
- Other CSE faculty can also advise the applied project. Find the complete faculty list at: https://cidse.engineering.asu.edu/faculty/

To find a project adviser, you email the faculty with the following information. This conversation should be done at least one week before the course starts:

- Background information on yourself including where you work and what you do;
- A description of the proposed project or project idea that you are interested in doing -- the project will be something that interests you that you will work with a faculty member on during the semester.

The project must be in the area of the advisor, so that the advisor can adequately supervise the project. If the faculty agrees to work with you on the proposed project, or a revised project based on the faculty's suggestion, then, you can register your CSE593 course under the faculty's name. If the faculty's name is not in the current CSE593 instructor list, please email the program adviser (Angela Woods <angie.woods@asu.edu>) to have the faculty's name added to the CSE593 instructor list.

There are no predefined formal class activities in CSE593. The work is done independently with your project advisor. The role of the project advisor is to manage the process of the project execution, including the progress reports, mid-term report, final report, and project presentation and/or demonstration. The project advisor will read the reports and give feedback to the students. Based on the assessment, the project advisor will assign the grade to the student at the end of the semester. Once selected the advisor, a student should come up with detailed project ideas and discuss the project contents and scope with the advisor.

Your instructor (project adviser) will decide the activities and grading policies of your project execution and outcomes. The following activity list and wights for grading are an example. Your instructor may or may not follow this example.

Sample Activity List

Week	Report	Content Description	Due date
Week 1	Report 0: Initial discussion and planning	This should have happened before the semester starts or in the first week. You just need to submit the initial discussions that you had with the instructor.	
Week 2	Lecture 1 & Test Lecture 2 & Test	Reading lecture and take lecture tests. Project Management Design Process	
Week 3	Report 1: Initial proposal	Follow the attached proposal outline as much as you can. Read the lecture slides attached. Submit this form with the planned submission dates.	
Week 4	Lecture 3 & Test Lecture 4 & Test	Research and Literature Review Project Planning	
Week 5	Report 2: Biweekly progress	Follow the biweekly report format	
Week 6	Lecture 5 & Test Lecture 6 & Test	Report Writing Proposal Writing and Mid-Term Report Requirement	
Week 7	Report 3: Biweekly progress	Follow the biweekly report format	
Week 8		Prepare for the Mid-Term Report	
Week 9	Report 4: Mid-Term Report (Full proposal)	Please follow the PPT slides of the "Lecture 5: Report Writing" and "Lecture 6: Proposal Writing".	
Week 10	Lecture 7 & Test Lecture 8 & Test	Engineering Ethics Monte Carlo Simulation	
Week 11	Report 5: Biweekly progress	Follow the biweekly report format	
Week 12	Lecture 9 & Test Lecture 10 & Test	Final Report Writing and Requirement Presentation Techniques	

Week 13	Report 6: Biweekly progress	Preparation of the Final Report and Presentation	
Week 14	Report 7: Final Report	Please follow the PPT slides of the "Report 5: Report Writing" and "Lecture 9: Final Report Writing	
Week 15	Report 8: Final Demo / PPT Slides with Audio	Please follow the PPT slides of the "Lecture 10: Presentation Techniques".	
Week 15	Report 9: Project Solution / Code	Please submit project and source code, with a read me file that show steps of loading and testing the code.	

Sample Activity Weights:

Lecture Exercises	10%
Initial discussion and planning	5%
Initial proposal	10%
Biweekly progress reports:	20%
Mid-Term:	20%
Final Report:	25%
Final demo/PPT slide show/code:	10%

Comments:

The purposes of these documents are:

Bi-weekly: make sure that the project is running smoothly with steady progress.

Mid-term report: summarizes what has been done, and based on the work so far, proposes the remaining work.

Final report: puts together what has been done, with analysis and recommendation.

Demonstration/Presentation/Code: The slides pick up the important stuff in the form of a short presentation and demonstration.

Academic Integrity and Honor Code

Students in this class must adhere to ASU's academic integrity policy, which can be found at https://provost.asu.edu/academic-integrity/policy). Students must review this policy and become familiar with each of the areas in which academic dishonesty can occur. All academic integrity

violations will be reported to the Fulton Schools of Engineering Academic Integrity Office. The Academic Integrity Office (AIO) maintains record of all violations and has access to academic integrity violations committed in all other ASU college/schools. Course content, including lecture slides, lecture videos, assignments, and tests, are copyrighted materials. In addition to ASU's academic integrity policy, students may not share outside the class, upload, sell, or distribute course content or notes taken during the conduct of the course (see ACD 304–06, "Commercial Note Taking Services" for more information).

Students must refrain from uploading to any course shell, discussion board, or website used by the course instructor or other course forum, material that is not the student's original work, unless the student first complies with all applicable copyright laws; faculty members reserve the right to delete materials on the grounds of suspected copyright infringement.

Policy against threatening behavior, per Student Services Manual, SSM 104–02

Students, faculty, staff, and other individuals do not have an unqualified right of access to university grounds, property, or services. Interfering with the peaceful conduct of university-related business or activities or remaining on campus grounds after a request to leave may be considered a crime. All incidents and allegations of violent or threatening conduct by an ASU student (whether on- or off-campus) must be reported to the ASU Police Department (ASU PD) and the Office of the Dean of Students.

Disability Accommodations.

Suitable accommodations will be made for students having disabilities. Students needing accommodations must register with the ASU disabilities resource Center and provide documentation of that registration to the instructor. Students should communicate the need for an accommodation in sufficient time for it to be properly arranged.

Harassment and Sexual Discrimination

Arizona State University is committed to providing an environment free of discrimination, harassment, or retaliation for the entire university community, including all students, faculty members, staff employees, and guests. ASU expressly prohibits discrimination, harassment, and retaliation by employees, students, contractors, or agents of the university based on any protected status: race, color, religion, sex, national origin, age, disability, veteran status, sexual orientation, gender identity, and genetic information.

Title IX is a federal law that provides that no person be excluded on the basis of sex from participation in, be denied benefits of, or be subjected to discrimination under any education program or activity. Both Title IX and university policy make clear that sexual violence and harassment based on sex is prohibited. An individual who believes they have been subjected to sexual violence or harassed on the basis of sex can seek support, including counseling and academic support, from the university. If you or someone you know has been harassed on the

basis of sex or sexually assaulted, you can find information and resources at https://sexualviolenceprevention.asu.edu/faqs.

Mandated sexual harassment reporter: As an employee of the University I am considered a mandated reporter and therefore obligated to report any information regarding alleged acts of sexual discrimination that I am informed of or have a reasonable basis to believe occurred.

ASU Counseling Services, https://eoss.asu.edu/counseling, is available if you wish to discuss any concerns confidentially and privately.