1 The Departmental Course Description

See the University catalog or see the descriptions for CSE 4101, CSE 4102, CSE 4201, and CSE 4202, on the department’s web site.

Educational Objectives

These courses prepare students for computing practice as a capstone experience. Students will be able to:

- Plan, design, implement, test and release a useful and robust software product.
- Function as productive members of a team.
- Practice techniques learned during their undergraduate study.

2 Project Requirements

Projects must incorporate engineering standards and realistic constraints. It is the responsibility of each student team to develop documentation that address concerns such as cost estimates and resource requirements, risks, milestones, security, ethical or legal issues, and usability. Project sponsors will require that appropriate documentation be maintained by the team. As a guideline, a standard set of software artifacts that meet these criteria is provided below. The project sponsor may select an alternative set of artifacts to be submitted for evaluation of the team’s project.

- A Software Development Plan – including a life-cycle selection, cost estimates, scheduling milestones, and resources required for development. The Software Development Plan will be updated, as necessary, throughout the project.
- A Requirements Document – text, UML models, data flow diagrams, etc. The Document includes functional requirements and, as needed, non-functional requirements, such as sustainability, safety, security, reliability, availability, usability, and installation.
- A System Test Plan – generated from the Requirements Document.
- A Design Document – top-level and detailed design; PDL, UML, etc.
- Code – well-structured and well-documented.
- Documented Test Results – unit tests, build tests, system tests.
- User Documentation – as needed.
- Notes and action items from reviews.
• Standards used: coding standards, database queries, UML, etc.

• No matter what artifacts you choose to submit as documentation of the team work on your project, you must submit answers to a checklist of questions that address the engineering standards used to complete your project.

Class Schedule

A calendar of scheduled events for this class is available on the class web page

Grading

Evaluation of team projects is the responsibility of the sponsor. The sponsor will submit grades to the course supervisors.

• Students in the first term of a project must present a summary of their progress to the class and faculty in the last few weeks of the term.

• The College of Engineering sponsors a “Senior Projects Showcase” in April of each year. Students enrolled in the second project course during the Spring semester must participate in this event.

• Students enrolled in the second project course during the Fall semester must present a final report to the class and faculty in the last few weeks of the term.

• Each project team or individual must create a video of documenting their project.

Class Information

Additional class information is maintained at: