

Cleveland State University
Department of Electrical Engineering and Computer Science

EEC 626 Software Engineering Project

Catalog Data: Software Engineering Project(4 credits)

Prerequisites: EEC 521,EEC 623, CIS 634, CIS 635

This is a project course. Students will apply software engineering principles, methods, and tools learned in their course work in building realistic software systems. Students work as small teams in solving real world problems. Students will meet regularly in class and teams meet separately.

Suggested Reading:

- Grady Booch, James Rumbaugh, Ivar Jacobson, The Unified Modeling Language User Guide, 2nd Edition, Addison-Wesley Professional, 2005.
- Philippe Kruchten, The Rational Unified Process: An Introduction, Third Edition, Addison-Wesley Professional, 2003.
- Robert C. Martin, Agile Software Development, Principles, Patterns, and Practices, 1st edition, Prentice Hall, 2002.

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Course Schedule:

This course consists of a group project and an individual survey paper.

1. Students will form small teams and each team works on a project to develop a software product. The instructor will act as a consultant to the project.
2. In the first class meeting, the students will form teams. Each team chooses its own project, organization, and tools. In the second class meeting, each team is required to come up with a preliminary project plan. The project plan should describe the project the team has chosen and the management of the project (organization, schedule, communications, roles and assignments, etc).
3. All projects should be developed iteratively. An iteration is roughly two weeks. At the end of each iteration, the team will deliver a version of the targeted software product. Successive versions with increasing functionality lead to the final version of the software product. A tentative list of iteration end dates is given below.

Iteration	Start-End Dates
1	1/22- 2/5
2	2/6-2/19
3	2/20-3/5
4	3/6-3/26 (spring break)
5	3/27-4/9
6	4/10-4/23
7	4/24-5/7

4. At the beginning of each iteration, each group should submit a brief project plan (1-2 pages) which lists objectives, tasks, schedule, etc, for the iteration.
5. At the end of each iteration, each group will give a presentation of the project status and a demonstration of the software. The whole class then discuss issues related to the project.

6. For every iteration, each team should submit an activity log, which summarizes activities, participants, and times spent in the past iteration. The activities include development activities such as analysis, design, coding, testing, documentation, etc, as well as supporting activities such as planning, discussion, setting up environment, preparing for presentation and demonstration, etc. A template for the activity log is available on Blackboard.
 7. The last iteration, iteration 7, should not involve new development.
 8. Each group will give a presentation in the finals week, on May 7.
 9. During the last week, each team and each student will meet with the instructor to reflect on the project and the course.
Besides the group project, each student will work on an individual survey paper. The survey paper will be on a technical topic related to software engineering agreed upon by the instructor.
1. To prepare for the paper, a student is expected to read 5-10 technical papers related to the selected topic.
 2. The paper should be 6-10 pages with single space and reasonable font size.
 3. An outline of the paper (1-2 pages) is due on Feb. 12. The outline should give a general description of the topic and a list of bibliography.
 4. An initial draft of the paper (2-4 pages) is due on March 5.
 5. A second draft of the paper (5-10 pages) is due on April 9.
 6. The final draft is due on April 30. Each student will also give a presentations about their paper on April 30.

Deliverables:

At the end of semester, during finals week, each team should submit the final project deliverables as follows. They should be sent electronically.

- Project documentation (project plan, requirements specification, design, test plan, test cases, known bugs)
- Source code
- Development environment (tools, data)
- Installation guide
- User manual

Grading:

Each student will be graded based on the group project and individual survey paper.

- Participation in class meetings, team meetings, etc. (10%)
- Project iterations (40%). 5% each for the first 6 iterations, and 10% for the final and 7th iteration. For each iteration, the grade is decided as
 - 10% for log
 - 20% for plan
 - 70% for presentation and demonstration
- Project deliverables (25%)
- Individual survey paper (25%). The grade is decided as follows.
 - 10% for outline
 - 20% for initial draft
 - 20% for second draft
 - 30% for final draft
 - 20% for presentation

The conversion to letter grade is as follows:

90%-100%	A
87%-89%	A-
83%-86%	B+
80%-82%	B
76%-79%	B-
60%-75%	C
0%-59%	F

Course Policies:

- Attendance to all classes is required. Students must obtain advanced permission to be absent.
- A student who misses two or more classes must see the instructor immediately with an explanation.
- Any kind of plagiarism is not allowed and will be handled according to departmental policy, which is available at <http://www.csuohio.edu/engineering/sites/csuohio.edu.engineering/files/Ethics%20Policy.pdf>. Dr. Simon has a very good presentation about plagiarism at <http://www.csuohio.edu/engineering/sites/csuohio.edu.engineering/files/Plagiarism.pdf>.
- Students are expected to follow ACM Code of Ethics and Professional Conduct at <http://www.acm.org/about/code-of-ethics>.