CSE 542 – Software Engineering Concepts

Instructor

Prof. Matthew Hertz   Davis 352
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Office Hours

Mon. 2:00PM - 4:00PM; by appointment; or whenever I am in my office

Readings

There is no textbook for this course.

There are links to online articles and videos that are associated with each content lecture. Reading the articles and watching the videos is not required, but students are STRONGLY encouraged to do so. The articles and videos greatly improve students’ experiences by reinforcing the concepts they are learning and showing how these activities are carried out in industry. These links are found on the course schedule page at:
http://www.cse.buffalo.edu/~mhertz/courses/cse542/lecture.html

Description

This course introduces the terminology and concepts of software engineering. The course begins by discussing how software engineering evolved and then introduces concepts needed for well-engineered software, the software process, and the management process model. Additional topics include software requirements definition, software design, verification and validation, and software management. To help students make these concepts more manageable, students will work in teams which leads a project flow through the entire lifecycle.

Course Materials

A series of webpages, including the classroom schedule and syllabus; project description and grading rubrics; links to suggested readings; and links to helpful resources have been created for this class. These webpages can be found at:
http://www.cse.buffalo.edu/~mhertz/courses/cse542

Additionally, this course will be using Piazza to manage course announcements, communication within project teams, and forums in which students can ask and answer questions. Students must signup for a free Piazza account and register through the class site:
http://piazza.com/buffalo/fall2017/cse542/home

Special Considerations

If the Accessibility Resources office has determined that you are eligible for class accommodations, such as recruiting notetakers, readers, or extended time on assignments, you must provide the course instructor with written documentation before any accommodation can be provided.
Student Learning Outcomes


Attendance & Conduct

This class discusses how software is developed in the “real-world.” As part of this process, students are expected to conduct themselves as the computer professionals they will become. Since students often get 2 weeks’ vacation in their first job, this course comes with 1 week of allowed absences. Unexcused absences beyond 2 lectures or 2 team meetings will result in a one step reduction to the appropriate grade.

Grade Components

<table>
<thead>
<tr>
<th>Semester Project</th>
<th>100%</th>
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**Semester Project** – While the semester project is performed in groups, the semester project grade is the group’s project grade multiplied by the student’s individual performance score. The individual performance score will be computed from the following elements:

- Group meeting attendance & preparation
- Quality of the commit messages and activities logged in the version control system
- End-of-semester peer evaluations

Overall Grades

Students grades in CSE542 will use the following translations unless a student’s grade is lowered due to excessive absences. The instructor reserves the right to revise the levels downward, if necessary.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percent</th>
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<tbody>
<tr>
<td>93+</td>
<td>A</td>
</tr>
<tr>
<td>90-92</td>
<td>A-</td>
</tr>
<tr>
<td>87-89</td>
<td>B+</td>
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<tr>
<td>83-86</td>
<td>B</td>
</tr>
<tr>
<td>80-82</td>
<td>B-</td>
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<tr>
<td>77-79</td>
<td>C+</td>
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<tr>
<td>73-76</td>
<td>C</td>
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<tr>
<td>70-72</td>
<td>C-</td>
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<tr>
<td>60-69</td>
<td>D</td>
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<tr>
<td>0-59</td>
<td>F</td>
</tr>
</tbody>
</table>
Academic Integrity

Source: http://www.cse.buffalo.edu/undergrad/policy_academic.php

The academic degrees and the research findings produced by our Department are worth no more than the integrity of the process by which they are gained. If we do not maintain reliably high standards of ethics and integrity in our work and our relationships, we have nothing of value to offer one another or to offer the larger community outside this Department, whether potential employers or fellow scholars.

For this reason, the principles of Academic Integrity have priority over every other consideration in every aspect of our departmental life, and we will defend these principles vigorously. It is essential that every student be fully aware of these principles, what the procedures are by which possible violations are investigated and adjudicated, and what the punishments for these violations are. Wherever they are suspected, potential violations will be investigated and determinations of fact sought. In short, breaches of Academic Integrity will not be tolerated.

**Departmental Statement on Academic Integrity in Coding Assignments and Projects**

The following statement further describes the specific application of these general principles to a common context in the CSE Department environment, the production of source code for project and homework assignments. It should be thoroughly understood before undertaking any cooperative activities or using any other sources in such contexts.

All academic work must be your own. Plagiarism, defined as copying or receiving materials from a source or sources and submitting this material as one’s own without acknowledging the particular debts to the source (quotations, paraphrases, basic ideas), or otherwise representing the work of another as one’s own, is never allowed. Collaboration, usually evidenced by unjustifiable similarity, is never permitted in individual assignments. Any submitted academic work may be subject to screening by software programs designed to detect evidence of plagiarism or collaboration.

It is your responsibility to maintain the security of your computer accounts and your written work. Do not share passwords with anyone, nor write your password down where it may be seen by others. Do not change permissions to allow others to read your course directories and files. Do not walk away from a workstation without logging out. These are your responsibilities. In groups that collaborate inappropriately, it may be impossible to determine who has offered work to others in the group, who has received work, and who may have inadvertently made their work available to the others by failure to maintain adequate personal security. In such cases, all will be held equally liable.

These policies and interpretations may be augmented by individual instructors for their courses. Always check the handouts and web pages of your course and section for additional guidelines.

**Departmental Policy on Violations of Academic Integrity**

The CSE Department has a zero-tolerance policy for AI violation.

**All** AI violations will be reported to the department, school, and university, and recorded.

Even a 1st offense will receive "F" for the course, where the instructor deems it appropriate to reduce the penalty. Subsequent violations of AI, in any form and in any other course, will automatically result in an "F" grade, with no exceptions.