SYLLABUS
CS 44902-001/CS 54902-001
Software Requirements Engineering

Spring 2021

Lecture Classroom: 12:30 PM – 1:45 PM (Tue, Thur)
Instructor: Dr. Augustine Samba
Email: asamba@kent.edu, tel: 330-672-9868
Virtual Office: 10:30 AM – 12:30 PM on Tue & Thur
Other times by appointment

Course Description:

Students will learn a systematic approach to requirements elicitation, envisioning, requirements engineering, while leveraging design-based ideation and validation. Topics include software and systems requirements engineering, interface design and modeling, systems architecture, performance engineering, ethics, systems verification and testing. Students apply this knowledge in the context of a semester-long project.

Course Prerequisite:

C or better in CS 33901 (Software Engineering) or graduate standing.

Course Objectives:

Learn concepts, activities and techniques of software systems requirements engineering and development

- Develop and Analyze Systems Requirements
- Develop Functional Requirements
- Software Requirements Specifications
- Requirements engineering tools
- Formal Requirements Review process
- Requirements Engineering Industry Standards
- Communications protocols overview
- Performance and Cybersecurity Requirements
- Case Studies

Required Textbooks:


Reference Texts

Grading Information

<table>
<thead>
<tr>
<th>Exercises</th>
<th>CS 44902-001</th>
<th>CS 54902-001</th>
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<tbody>
<tr>
<td>Homework</td>
<td>15%</td>
<td>10%</td>
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<tr>
<td>Group Project</td>
<td>50%</td>
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<tr>
<td>Peer Evaluation</td>
<td>5%</td>
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<tr>
<td>Project Presentation</td>
<td>15%</td>
<td>10%</td>
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<tr>
<td>Final Exam</td>
<td>15%</td>
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<tr>
<td>Prototype</td>
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**Homework**
There will be two homework assignments. The two assignments combined will account for 15% and 10 for CS 44902 and CS 54902 respectively.

**Group Project**
Each student is required to participate in a Group Project with other classmates. Students will work in groups of 4 team members. Each Group will select a Requirements Engineering project and develop detailed requirements engineering technical document for their project based on industry standards.

CS 54902 students will implement a prototype of their systems requirement specifications. The prototype will account for 10% of the cumulative grade

**Final Project Presentation and Review**
Each Group will prepare a presentation in PowerPoint format. Grades will be based on the content and the clarity and logic of both the exposition. Each Group is required to give presentations of their project to the class. The Final Project presentation will consist of about 12 to 15 PowerPoint slides plus the Requirements Engineering Project documentations. The Final Project Presentation and Review will account for 15% of the overall grade. The individual grades will be determined based on each student's participation and performance in the presentation.

**Peer Evaluations**
Each student is required to complete and submit the midterm and final Peer Evaluations via Blackboard Learn. The peer evaluation assignments will account for 5% of the overall grade.

Please use the following criteria to rate yourself and each member in your Team:

1. **Effort / Active Participation**: Following through on the project and being accountable to group members.
2. **Contribution**: Improving quality of work, being creative, bringing unique skills and abilities that aid in the quality of the final product, and providing leadership.
3. **Attendance**: Attending team meetings and or group activities.
4. **Supported Group Process**: Eliciting and valuing input of others, mediating arguments and relieving tension, lending a positive attitude, and other maintenance roles that enhance group social climate.
5. **Communication**: Checking in with the Group before missing a meeting, clarifying expectations, keeping communication channels open, facilitating others' participation, and “speaking” and “listening” effectively.
Final Exam
The Final Exam is comprehensive; The Final Exam is scheduled on Wednesday, May 11, from 12:45 to 3:00 PM

Grading Guidelines
Grades will be assigned based on the range of percentages indicated below:

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<tr>
<th>Grade Level</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>93% &lt; score &lt;= 100%</td>
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<tr>
<td>A-</td>
<td>90% &lt;= score &lt; 93%</td>
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<tr>
<td>B+</td>
<td>86% &lt;= score &lt; 90%</td>
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<tr>
<td>B</td>
<td>83% &lt;= score &lt; 86%</td>
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<td>D</td>
<td>63% &lt;= score &lt; 66%</td>
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<tr>
<td>F</td>
<td>score &lt; 63%</td>
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Academic Honesty
Cheating means to misrepresent the source, nature, or other conditions of your academic work (e.g., tests, papers, projects, assignments) so as to get underserved credit. The use of the intellectual property of others without giving them appropriate credit is a serious academic offense. The University considers cheating and plagiarism very serious offenses and provides for sanctions up to and including dismissal from the University or revocation of a degree. The University’s administrative policy and procedures regarding student cheating and plagiarism can be found in the Administrative Policy, 3-01.8. By submitting any material in this (or any other class) you are certifying that it is free of plagiarism.

Withdrawal Deadline
Withdrawal from any or all courses is permitted through the 10th week of the semester.

Students with Disabilities:
University policy 3342-3-01.3 requires that students with disabilities be provided reasonable accommodations to ensure their equal access to course content. If you have a documented disability and require accommodations, please contact the instructor at the beginning of the semester to make arrangements for necessary classroom adjustments. Please note, you must first verify your eligibility for these through the Student Accessibility Services (contact 330-672-3391 or visit www.kent.edu/sas for more information on registration procedures).
Proper Enrollment:

Students have responsibility to ensure they are properly enrolled in classes. You are advised to review your official class schedule (using Student Tools in FlashLine) during the first two weeks of the semester to ensure you are properly enrolled in this class and section. Should you find an error in your class schedule, you have until cut-off date provided by the Undergraduate Office to correct the error with your advising office. If registration errors are not corrected by the cut-off date and you continue to attend and participate in classes for which you are not officially enrolled, you are advised now that your will not receive a grade at the conclusion of the semester for any class in which you are not properly registered.