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| Course Name: | ECE 46100 Software Engineering |
| Credit and contact hours: | (3 cr.) Class 3 |
| Course coordinator's name | Stanley Chien |
| Textbook | <i>Software Engineering: A Practitioner's Approach, 8th Ed.</i> ISBN No. 978-0078022128 |
| Course Information | <p>ECE 46100 Software Engineering (3 cr.) Class: 3. Introduction to software engineering principles with special emphasis on the process, methods, and tools needed to develop and test quality software products and systems.</p> <p>Prerequisites/ CoRequisite P: CSCI 24000 and ECE 37200</p> <p>Indicate whether a required, elective, or selected elective course in the program</p> |
| Goals for the course | <p>Upon successful completion of the course, students should be able to</p> <ol style="list-style-type: none"> 1. The ability to conduct object-oriented design and use unified modeling language. [1,3] 2. The ability to understand different models of software development processes. [1,2,6] 3. The ability to analyze requirements and write project specifications. [1,2,6] 4. The ability to successfully develop a team software project in time and meet the specification. [1,2,4,3,6] |
| List of topics to be covered | <ol style="list-style-type: none"> 1. Introduction, project description and team organization requirement analysis and project specification 2. Version control and bug tracking 3. Visual programming and user interface 4. Object-oriented design and unified modeling language 5. Software development process 6. Open source development model 7. Midterm project presentation 8. Team management 9. Ethics, reliability and standard 10. Test and verification 11. System integration 12. Estimation and product metrics 13. Software release and post-release analysis 14. Final project presentation 15. Engineering Design Consideration(s): economic, environmental, ethical, sustainability |
| Syllabi Approved by | Stanley Chien |
| Date of Approval | |