

CSCE 492: Capstone Software Engineering Project II

1. Course number and name: CSCE 492: Capstone Software Engineering Project II
2. Credit: 3-hrs; Contact: 3 lectures of 50 minutes each or 2 lectures of 75 minutes each per week
3. Instructor: Fall 2010: John B. Bowles and Jose M. Vidal
4. Text book: Ralph M. Ford and Chris S. Coulston, *Design for Electrical and Computer Engineers: Theory, Concepts, and Practice*, McGraw-Hill, 2008
5. Specific course information
 - a. Catalog description: Continuation of CSCE 490. Computer system implementation, testing, verification and validation of results. Written reports and oral presentations in a technical setting.
 - b. Prerequisites: CSCE 490.
 - c. Required in CS and CIS curricula
6. Specific goals for the course
 - a. Specific outcomes of instruction:
 1. Plan and complete an independent project under time and resource constraints;
 2. Apply fundamental software engineering techniques to produce a high quality application;
 3. Organize and work as a part of a team to accomplish the project goals.
 4. Design implement and test a computer based system, consisting of an appropriate mix of software and possibly hardware components, using the techniques, skills, and tools of modern computer system development practice.
 5. Develop effective written and oral skills to communicate among team members and others in a professional manner.
 - b. Relation of course outcomes to Student Outcomes: CE: see page 2; CS & CIS: see page 3
7. Topics covered and approximate weight (14 weeks, 3 hours/week, 42 hours total)

System classes

 1. UML system models.
 2. System implementation
 3. Test planning: who, where, what, when, how of testing.
 4. Test allocation and specification (what and how much to test)
 5. Test case specification.

6. Test execution, error identification and correction
7. Regression testing.

* 3 = major contributor, 2 = moderate contributor, 1 = minor contributor; blank if not related.

5. Develop effective written and oral skills to communicate among team members and others in a professional manner.												
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