CSCI 362 001

Software Engineering Syllabus

Fall 2007

Instructor

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hours. I will ignore other Emails.

Office hours: MW: Noon – 1:00 PM; TR: 11:00 AM- Noon, or by appointment

Class place and time

Classroom: J.C. Long Building (LONG) 219

Time: MW 2:00-3:15 PM

Catalog description

CSCI 362 – Software Engineering – This course examines the discipline of software engineering. It provides both a historical and contemporary view of the engineering process and methodology used by software development organizations. This course will examine the software development life cycle with particular emphasis on the pertinent roles, activities, and artifacts present at each stage of development.

Prerequisite: CSCI 230 - Data Structures and Algorithms

Corequisite: COMM 104 - Public Speaking

Required text

Software Engineering, 8th Edition, by Ian Sommerville, Addison-Wesley, 2007.

Electronic Resources

- 1) Class Website
- 2) Textbook Student Resources
- 3) Software Engineering Body of Knowledge (SWEBOK)
- 4) Google Scholar
- 5) The College of Charleston <u>Libraries</u> supply free full access to a wide range of electronic resources, including the ACM Digital library and the IEEE Computer Society Journals.
- 6) We will decide as an in-class project whether to use WebCT, Yahoo groups, or a "wiki" to manage the class content and group projects.
- 7) Center for Student Learning
- 8) Career Planning Guide provided by the Career Center

Learning Objectives

The principal objective of this course is to prepare you for your career as a software engineer or software architect by exploring historical and contemporary issues in Software Engineering (SE). These issues include: SE and its relation to computer science and other engineering disciplines, SE licensure and certification, socio-technical systems, safety-critical systems, ethical issues in SE, SE methodologies, development theory, and practice, SE team dynamics, SE project management, SE emerging technologies. Upon completion of this course, you will have a working knowledge of these areas based on extensive readings, research, writing, and speaking assignments. You will also gain critical analysis skills to enable you to analyze and assess SE processes and artifacts and to think holistically about software engineering.

Professional Development

I highly recommend that you join either the Association for Computing Machinery (<u>ACM</u>) or the Institute of Electrical and Electronics Engineers (IEEE) <u>Computer Society</u>. Both offer student memberships. We have a College of Charleston <u>student chapter of the ACM</u>, which you are encouraged to join (free, with free food) and attend. In your professional careers as software engineers, you should maintain one or both of these memberships.

Team Projects

I will form teams of three to four members. I will assign projects of varying scope and specifications to the teams during the semester. There will be a term team-project to research a specific subject and produce a series of deliverables including a term paper, a poster, and an oral presentation. I encourage students to plan to present their posters at the annual School of Science and Mathematics Poster Session (April.) Details to be announced.

Attendance and class participation

I expect you to attend and participate in every class session. Your active participation will lead to your success and to the success of the class. I expect you in class on time and prepared by having read the assigned readings. Class participation counts as 10% of your grade.

Homework and assignments

All assignments are due at the beginning of class on their due date with no exceptions. Unless otherwise specified, you will E-mail each assignment (see above) as a single PDF. I require professional-grade documents containing identifying information as well as the work itself. I will post the best work on the class web-page.

Instructor availability

I am here to teach, advise, and assist you. I maintain an open-door policy, so feel free to step into my office. (Knock if the door is closed.) I will respond to your emails (see above.)

Classroom disruption

Please read the College of Charleston's <u>Student Code of Conduct</u>. When you come to class please turn off your cell phones and all other electronic communication devices.

Disabilities

If you have a documented disability and are approved to receive accommodations through <u>SNAP Services</u>, please contact me during office hours or by appointment.

Student Honor Code

I expect you to abide by the <u>Honor Code</u> and the <u>Student Handbook: A Guide to Civil and Honorable Conduct</u>. If you have a question about how to interpret the Honor Code, ask before acting! I encourage collaboration, but you must document it. Thus, each student will submit their own homework and, when collaborating, provide a reference to those people and documents consulted.

Grading scale

100-92 (A); 91-88 (B+); 87-80 (B); 79-77 (C+); 76-70 (C); 69-67 (D+); 66-60 (D); else (F)

Evaluation schedule

- 10% Class preparation and participation including quizzes
- 25% Homework
- 15% Midterm exam
- 25% Team projects including in-class oral presentations
- 25% Final exam