CSCI 360 001 Software Architecture and Design Spring 2007

Syllabus

Instructor:

Jim Bowring: http://www.cs.cofc.edu/~bowring/
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Tel: 843.953.0805
Email: Please use bowringj@cofc.edu with Subject = "CSCI360: …" for a response within 24 hours. I may ignore other E-mails.
Office hours: MW: 03:30 - 04:30; TR: 1:30-2:30, or by appointment

Class place and time:

Classroom: J.C. Long Building (LONG) 219
Time: MW 02:00-03:15 PM

Catalog description:

CSCI 360 – *Software Architecture and Design* - This course covers the process of constructing software, including the structural view of software components, and their characteristics and interrelationships, at a high level of abstraction. The course also covers the design principles that govern the purpose, structure, development, and evolution of software components. The informal laboratory component of the course uses software design tools to reinforce design processes and representations.

Prerequisite: CSCI 230 – Data Structures and Algorithms
Corequisite: COMM 104 – Public Speaking

Required text:

Introduction to Software Engineering Design: Processes, Principles and Patterns with UML2, 1st Edition, by Christopher Fox, Addison-Wesley, 2006.

Required free, platform-independent Software: Netbeans 5.5 with Enterprise Pack

Electronic Resources:

1) Class website: http://www.cs.cofc.edu/~bowring/csci-360-spring-2007.html
2) Software Engineering Body of Knowledge (SWEBOK)
3) Google Scholar
4) The College of Charleston Libraries supply free full access to a wide range of electronic resources, including the ACM Digital library and the IEEE Computer Society Journals.
5) Center for Student Learning
6) 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 the science of design in the context of software engineering: the nature of design, design processes, design notations, design principles, design heuristics, and design patterns. In addition, the course will focus on team-based activities and projects and on assessing team performance in these contexts. However, each student will both write and speak publicly about various topics. Finally, it is an objective of this course to encourage an awareness of the ethical and cultural issues in software design.

Professional Development:
I highly recommend that you join either the Association for Computing Machinery (ACM) or the Institute of Electrical and Electronics Engineers (IEEE) Computer Society. Both offer student memberships. We have a College of Charleston student chapter of the ACM, which you are encouraged to join and attend. In your professional careers as software engineers, you will likely be expected to maintain one or the other of these memberships.

Attendance, class participation, and oral presentations:
I require 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. You will give an oral presentation of 10 minutes to the class on a day I specify. Class participation counts as 15% of your grade.

Homework and assignment policy:
All assignments are due at the beginning of class on the due date, without exception. All assignments must be in PDF format, unless otherwise specified, and submitted to me via E-mail. Each assignment must be professional in appearance with your full name and other pertinent identifying information. The names of all submitted files will begin: [last]_[first]_... followed by meaningful identifiers.

Team projects:
Students will form into teams on the first day of class. The teams will switch membership at least once during the semester. Teams will arrange to work outside of class. You are encouraged to use electronic collaborative tools such as blogs to aid your teamwork. The work products of each team should be of professional quality.

Classroom disruption:
Please read the College of Charleston's Student Code of Conduct. 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 SNAP Services, please contact me during office hours or by appointment.

Student Honor Code:
You are expected to abide by the Honor Code. If you have a question about how to interpret the Honor Code, ask before acting! I encourage collaboration, but you must document it. Each student must submit their own homework and provide a reference to those people and documents consulted in the process. Team submittals must also reference those people and documents consulted in producing the deliverable.

Grading scale:
100-92 (A); 91-88 (B+); 87-80 (B); 79-77 (C+); 76-70 (C); 69-67 (D+); 66-60 (D); 59 and below (F)

Evaluation schedule:

15%	Class preparation and participation including oral presentations
20%	Homework
20%	Midterm exam
20%	Team activities and projects including presentations
25%	Final exam