12598 CSIS 603-1   **Object-Oriented Design Patterns**   **Fall 2010**
Syllabus

Instructor
Dr. Jim Bowring: http://www.cs.cofc.edu/~bowring/
Office: J.C. Long (LONG) 222; NORT ____
Tel: 843.953.0805
Google Voice: 843.608.1399
Google Chat: bowring@gmail.com
Email: Please use bowringj@cofc.edu with Subject = "**CSIS603**"
Office hours: MWF: 1:00 – 2:00; M: 4:30 – 5:30, by appointment

Class place and time
Classroom: NORT 130
Time: W   5:30-8:30 PM

Catalog description
CSIS 603 Object-Oriented Design Patterns (3 semester hours credit)
A course in software design using design patterns as a tool for communicating software design solutions and as an aid in software refactoring. Creational, structural and behavioral patterns are emphasized. Also covered are finding and documenting software development patterns. The Unified Modeling Language is used as the design tool for software patterns and programming projects are in an object-oriented programming language.

Required texts
Design Patterns, by Gamma, Helm, Johnson, Vlissides, Addison-Wesley, 1994.
Refactoring to Patterns, by Kerievsky, Addison-Wesley, 2005.

Electronic Resources
1) Google Scholar
2) 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.
3) Center for Student Learning
4) Career Planning Guide provided by the Career Center

Learning Objectives
The principal objective of this course is to improve your software design, engineering and maintenance capabilities with knowledge of object-oriented patterns. This knowledge will include the history of patterns, their use in designing greenfield projects and their use in refactoring and documenting existing projects. Upon completion of this course, students will have extensive practical experience with applying patterns to both existing code bases and to solving design problems.

Professional development
I highly recommend that you join either the Association for Computing Machinery (ACM = $19 for a student) 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 career as a software engineer / architect, your employers will likely expect you to maintain one or the other of these memberships.

Research projects
You will produce research papers during the semester on topics related to the course. I will prepare specifications at the appropriate time. In general, you will research and present the work of other researchers as published by the ACM or IEEE Computer Society. You should be prepared to present your work to the class on the due date of the paper.

Attendance and class participation
Class participation counts as 10% of your grade.

Homework and assignments
All assignments are due at the beginning of class on their due date. Unless otherwise specified, you will E-mail each assignment as a single PDF. I expect professional-grade documents containing identifying information as well as the work itself.

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.)

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 Conduct:
I expect you to abide by The College of Charleston Student Handbook, which includes sections on conduct and the Honor Code. If you have a question about how to interpret the Honor Code, ask before acting! I encourage collaboration on assignments and projects, but you must document the collaboration with the names of your collaborators on the assignment.

Grading scale (see page 9 of Graduate Catalog)
Superior (A); Very Good (B+); Good (B); Fair (C+); Acceptable (C); Not Acceptable (F)

Evaluation schedule
- 10%   Class preparation and participation
- 40%   Assignments
- 20%   Midterm exam
- 30%   Final exam