CS4667: Software Engineering

Time/Room: 10:00AM - 10:50AM, CAP 307

Description: Methodical development of large software systems. Topics include: models, project life cycle, requirements and specification, structure charts and design criteria, incremental implementation, software metrics. Students will participate in the realization of both group and individual software systems. Prerequisite: CS 3481.

Instructor Barry L. Kurtz (www.cs.appstate.edu/~blk)
Office/Phone 119 CAP Bldg., 828-262-7008
Office hours MWF 2:00-4:00 PM or TuTh 9:00 – 11:00 AM or by appointment


Grading Policy:
- Exercises/Homework/Class Participation 20%
- Course Project 40%
- Midterm 15%
- Final Exam 25%

These percentages represent guidelines and may vary during the semester. Examination grades will be curved when the exams are returned so that you will have a good indication of your relative class standing.

New Technology:
We will be using two cutting edge technologies in this course: video podcasting and tablet PCs. Everyone will be given a free loan of a 30 GB video iPod for the entire semester. Traditional lecture materials will be prepared as video podcasts that you will access and download. These materials will contain specific exercises you are to turn in at the start of the next class. You will view these video podcasts outside of class, complete the exercises, and turn them in the next class period. Unless specifically noted otherwise, this work is to be completed individually. Class time will be primarily devoted to collaborative problem solving in groups. Each group of 4 or 5 students will share a tablet PC. These tablet PCs will be linked to the instructor’s tablet PC so that at any time group work can be shared with the class via the classroom display projector. Since these iPods contain a 30GB hard drive that can be accessed from the tablet PC, solutions to homework exercises can be shared at the start of the class period.

Course Objectives
1. Modeling with UML and Project Organization
2. Requirements Elicitation and Analysis
3. System Design and Object Design
4. Mapping Models to Code and Implementation
5. Project Integration and Testing
6. Project Management and the Software Life Cycle
Teaching Philosophy
This course will follow the textbook closely. Supplemental materials from other sources may also be included. Podcasts of the lectures will be available outside of class. Exams will be based on the textbook, lecture materials, exercises, and programming assignments. When project work is completed in small groups, each group member will be asked to assess the relative contribution of all group members.

Attendance Policy
All students are expected to attend class unless absent with a valid, documented excuse, such as a note from the infirmary. Five percent of the grade will be based strictly on class attendance with each unexcused absence affecting this score. Any student with three or more unexcused absences will fail the course.

Software Development Policy
Microsoft SharePoint will be used to collaborate non-programming activities. CVS will be used to collaborate program code. You will learn to use both of these tools as part of course instruction. You will also learn to use web services developed in Java. In a tiered, layered architecture, web services will be used to interface between these layers.

Late Submission Policy
No programs, exercises, or other course components will be accepted late unless accompanied by a valid, documented excuse, such as a note from the infirmary.

Communications Policy
Your email account on the “cs” machine will be used to communicate detailed course information. You are required to check your email once a day during the school week. You are also required to check the SharePoint site on a daily basis when school is in session.

Collaboration Policy
PROGRAMMING ASSIGNMENTS
In the software engineering class, group work is required. The entire group will be grades based on the single software product produced. Each group member will be asked to assess the relative contribution of all group members; this will be used to adjust the individual grades. If some student does not contribute to a particular component being submitted for grading, that student will receive a 0 even when the group grade is much higher.

EXAMS
No discussion of any kind, except with the instructor, is allowed during exams. Access to books, notes or other material is strictly forbidden.