

CSci 780: Advanced Software Engineering

Where and when

- Class: 9:00-9:50 MWF, McGloughlin-Street Hall, Blair 219
- Office hours: 10:00-11:00 MWF, and by appointment. 140 McGloughlin-Street Hall

Instructor

- David Coppit (<http://www.cs.wm.edu/~coppit/>, coppit@cs.wm.edu)

Website

- <http://www.cs.wm.edu/~coppit/csci780/>

Description

- From the catalog: Research seminar on current topics in software engineering, with an emphasis on software design. Students read and present technical papers from relevant journals and conference proceedings. Synthesis and understanding of materials is demonstrated by a required research project.
- The goals of this course are: (1) to learn about seminal work in software engineering, (2) to learn about today's innovative research, and (3) to learn and practice the activities of a researcher.

Prerequisites

- Graduate students only

Books

- **Required:** *The Mythical Man-Month: Essays on Software Engineering* (2nd Edition) by Frederick P. Brooks (0201835959)
- **Suggested:** *Peopleware: Productive Projects and Teams* (2nd Edition) by Tom DeMarco and Timothy Lister (0932633439). *Code Complete* by Steve McConnell (1556154844).

Course structure

Class will meet three times a week. Some course material will be presented by the instructor, but the bulk of it will be presented by the students. Each class will consist of a lecture on the day's book or paper, followed by a directed discussion on the material. Students will also receive feedback on their teaching from the instructor and their classmates. Students must turn in a summary of every paper on the day that the paper is presented.

Students will be expected to work in pairs on a project in one of the areas we will cover. This project will be "significant" in that it must have some nugget of research, but

“small” in that it can be done in 2 months. The project will be conducted as a mini research endeavor:

- Prepare an NSF-like proposal (using LaTeX)
- Prepare a simulated budget
- Perform the work, providing status updates
- Write a research paper on the work (using LaTeX)
- Review each other’s papers
- Present the work to their peers.

Grading

The point distribution is as follows:

- Class Participation: 10%. If you do not participate in class discussions, I will assume you did not read the paper.
- Paper summaries: 10%
- Paper Presentations: 20%
- Proposal: 10%
- Mid-term Project Report: 10%
- Project Research Paper: 20%
- Project Presentation: 20%

Students who need accommodation

- Please see me after class or send email to set up a brief meeting.