

CSci 635: Advanced Software Engineering
The College of William and Mary

Fall 2012

Time: MWF 1:00pm – 1:50pm

Location: Blow Memorial Hall 331

Instructor:	Denys Poshyvanyk	Project Assistant:	Bogdan Dit
Office Hours:	MW, 11am-1pm	Office:	McGlothlin-Street Hall, 101C
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Course URL: All course materials will be posted on the blackboard

Course description:

This advanced software engineering course will explore leading research in the field of software maintenance and evolution. Students will acquire the knowledge needed to perform research or conduct practice in the field. Each class will cover paper and topic presentations by the instructor and students. The majority of course materials will be drawn from the classic research papers and the current state-of-the-art in software maintenance and evolution. Students will read and review papers ahead of time, participate in class discussions, work on homework assignments, present papers during the course and complete a term project. Students will also write a final paper and make a presentation for their project in IEEE format designed to give students an experience similar to that of that of submitting to a professional conference. The class will be concluded with a final exam.

Projects:

All students are expected to perform a term project. The project ideas will be provided by the instructor and selected by the students early in the class. The projects will be assigned on the first come first served basis. The students are strongly encouraged to discuss the project selection with the instructor. The project involves a significant investigation into some aspect of software maintenance and evolution. The goal of the project is to permit a more in-depth exploration of topics in software maintenance and evolution than is possible from just the in-class presentations and discussions. The output from the project is a written report, approximately 10 pages in length, written in the form of a research paper, following IEEE conference format guidelines. The project will have the following deliverables: intermediate project reports (designed to provide early feedback on the project progress), final project report and the final project presentation.

Presentations:

Each class will cover one paper presentations by the instructor and students, follow-up discussion and a presentation by the instructor on one of the selected topics. The presentations must be done by students on the date assigned by the instructor. The presentations made by students will be graded and thus, missing the date of the presentation will result in "0" grade for that particular assignment. The students, presenting a paper in the class must e-mail their presentation (*.pdf or *.ppt) to the instructor no later than 10:00am on the date the paper is presented.

Grading guidelines: The grading criteria for paper presentations, paper reports, and final project reports will be discussed in the class and provided on the blackboard. It should be noted that the intermediate project reports will also be graded. The student should expect to receive a detailed feedback on their intermediate reports. The students will be given a chance to address these comments and make up for deducted points in the final project paper report.

Important dates:

- 9/5 Project selections are due (assigned on first come first served basis¹)
- 9/7 Paper presentation selections are due
- 9/17 Project: related work and plan of work
- 9/26 HW#1 is due
- 10/10 Project: description of the approach
- 10/17 HW#2 is due
- 10/29 Project: design of the case study
- 11/16 Project: case study results
- 12/5 The final project presentation
- 12/7 The final project presentation
- 12/14 The final exam
- 12/17 The final project paper is due (11:59pm Apia time)

Point distribution:

- Class participation: 10%
- Research paper presentation: 10%
- Project (related work: 5%; approach: 5%; design: 5%; results: 5%; paper: 15%): 40%
- Final project presentation: 10%
- Homework assignments (2 assignments × 5% = 10%): 10%
- Final exam: 20%
- *Extra points (user studies, project ideas): 10%*

Final grades:

- 95% - 110% A
- 90% - 94% A-
- 85% - 89% B+
- 80% - 84% B
- 75% - 79% B-
- 70% - 74% C+
- 65% - 69% C
- etc

Late policy:

The homework assignments and intermediate project reports must be handed in before each class. If you have a compelling and documented reason for not being able to meet the deadline, you must make the alternative arrangements *before* the due date. Late submissions will not be graded.

Other Notes:

- Copying or plagiarism of any type will not be tolerated and will be dealt with in accordance to the College's policy on cheating and plagiarism described in the student handbook.
- A separate schedule of classes will be posted on the blackboard system and updated during the semester. The schedule will contain information on the topics, assigned papers, and due dates.
- I support sustainability initiatives on the WM campus. To reduce paper use, most of the course documents (including the syllabus, readings, and most assignments) will be provided on the Blackboard page. Please try to save paper by reading these documents online, if possible. If you must print out documents, please consider printing double-sided and/or with two sheets per page. I also encourage you to turn in your assignments electronically. For more information, please see the Sustainability at W&M website: www.wm.edu/sustainability

¹ It is a good idea to send me a ranked list of your favorite projects (not just a single project!).