

**CSci 780: Mining Software Repositories**  
**The College of William and Mary**

**Fall 2014**

**Time:** MWF 1:00pm – 1:50pm

**Location:** McGlothlin-Street Hall 002

<b>Instructor:</b>	Denys Poshyvanyk	<b>Email:</b>	denys [at-sign] cs.wm [just.a.dot] edu
<b>Office Hours:</b>	MW, 11:30am-1pm	<b>URL:</b>	<a href="http://www.cs.wm.edu/~denys">http://www.cs.wm.edu/~denys</a>
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**Course URL:** <https://piazza.com/wm/fall2014/csci780/home>

**Course description:**

This advanced topics course will explore leading research in the field of mining software repositories. 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/or students and followed by intense discussions of the papers and presented ideas. 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, 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 submitting to a professional conference.

**Projects:**

All students are expected to perform a **significant** 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 engineering research and/or practice via mining software repositories. 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 12 pages in length (10 pages for text and 2 pages for references), 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), the final project presentation, and the final project report.

**Presentations:**

Each class will cover one paper presentation by the instructor and students and follow-up discussion. The presentations must be done by students on the date assigned by the instructor in the course schedule. 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 and \*.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:**

- 9/1 Project selections are due (assigned on first come first served basis)
- 9/5 Paper presentation selections are due
- 9/8 **Project and paper selections are finalized** (after add/drop period ends on Sept 5<sup>th</sup>)
- 9/15 Plan of work and the related work write-up is due
- 9/22 Approach description is due
- 10/6 Design of the case studies write-up is due
- 10/31 Preliminary results write-up is due
- 11/17 Final results are due
- 12/1 The final project presentations
- 12/3 The final project presentations
- 12/5 The final project presentations
- 12/12 **The final project paper is due (11:59pm Apia time)**

**Point distribution:**

- Class participation: 20%
- Research paper presentation (2 assignments × 10% = 20%): 20%
- Project (related work: 5%; approach: 5%; design: 5%; results: 5%; final paper: 30%): 50%
- Final project presentation: 10%
- *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+, etc

**Late policy:**

The intermediate project reports must be handed in or e-mailed 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:**

- This term we will be using Piazza for class discussion as well as questions and answers that we do not have time to discuss in class. The system is highly catered to getting you help fast and efficiently from classmates, project assistants, and myself. I encourage you to post your questions on Piazza.
- 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](http://www.wm.edu/sustainability)