

CS 342 – Software Engineering II
Syllabus – Spring 2016

“In theory there is no difference between theory and practice. In practice there is.” – Yogi Berra

INSTRUCTOR: Tom Naps

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OFFICE HOURS: MWF 9:30 - 10:30, Thursday 9:15 - 11:15

REFERENCES:

- Any handouts, readings, guide-sheets, assignments etc. that are needed for a class will be posted 4:00am on the Monday or Wednesday of the class meeting.

Topic Coverage

1. Introduction to Free and Open Source Software (FOSS)
2. Communication and participation on OSS projects
 - Project wikis
 - Blogs and planets
 - IRC
 - Mailing lists and newsgroups
 - Bug trackers and repositories
 - Contributing as a developer
3. Getting and building code
4. Unit testing and test driven development
5. Refactoring
6. Design patterns

Learning Outcomes

By the end of the course you should be better able to:

- Become productive at working within the context of a large, complex code base.
- Apply a variety of software engineering methods, techniques, and tools to the development of a significant software project.
- Develop a work breakdown structure and task set for a given project or phase thereof.
- Use appropriate techniques to identify and refine requirements for a significant software development project.
- Work effectively as a member of a development team.
- Establish an atmosphere of trust and mutual commitment with co-developers.
- Establish an atmosphere of trust and mutual respect with user representatives.
- Conduct effective technical walk-through and code review sessions with peers.
- Establish effective communications with clients and co-developers.
- Create and contribute work product to project repository as assigned.
- Document personal project experience, including key project elements and learning moments, for your individual professional portfolio
- Distinguish among different software design and testing strategies, and identify appropriate strategies for a given project.
- Ability to design and create software that meets the defined needs of users.

Course Grading Policies

Your grade for the course will be based on the following weighted factors:

Factor	Weight
Class participation and preparation	14%
Individual assignments	14%
One written report on a topic determined on an individual basis	14%
Team project	14%
HFOSS project (OpenMRS)	14%
Your continuously developed online portfolio	13%
Your participation in a field trip to Epic Systems in Verona on Wednesday, April 27. We will leave at 11:00am and be back by 7:00pm	3%
One exam on Monday, May 2	14%

At the end of the term, your work in all of these areas will contribute to a numerical grade for the course based on a 100-point scale. Grade cutoff levels on this final scale are:

A \geq 92
A- \geq 90
B+ \geq 88

B \geq 82
B- \geq 80
C+ \geq 78

C \geq 72
C- \geq 70
D+ \geq 68

D \geq 62
D- \geq 60
F $<$ 60

FAQ

Do I have to come to class? Yes, this class is all about your participation and involvement in the factors cited above that determine your grade. Skipping a class is a “zero” in terms of that day’s commitment to participation and involvement. Just like your employer would penalize you for skipping a day of work, so will I.

How much time will this course take? Figure about three hours outside of class for each hour in class. That heuristic makes being a full-time student pretty much equivalent to holding a full-time job, so this is really good preparation for the real world that awaits you after graduation.

How can I best prepare for that exams? Continuously participate and be involved in what you are responsible for doing.

What if I’m late in completing an assignment? You will receive zero credit for it.

If I miss the test, can I make it up? If you are unable to take a scheduled exam, it may be possible to take a make-up exam provided that you do BOTH of the following, which are then subject to my approval:

- Make arrangements prior to the scheduled exam (for last minute emergencies, telephone me at 424-1388 or leave a message at the computer science office, 424-2068). No after-the-fact notifications will be accepted . . . *AND*
- Have a written medical excuse signed by the attending physician OR have a note of justification from the Dean of Students Office.

Only one make-up exam will be given. It will be a rigorous comprehensive exam given at an arranged time during the last week of the semester.