CS362 – Software Engineering II (Tentative Course Outline/Calendar)

Note: The schedule may be adjusted if it becomes apparent that more/less time is needed for some of the topics. Additional tasks may be assigned and graded

Week	Topics
1	• Version control systems • Forks, Pull requests, Branching • Git, GitHub
2	• Overview (Civil Engineering and Software Engineering) • Thinking about Testing • Maintenance and Source Control • Builds & Static Analysis • Introduction to Software Testing: Kinds of Testing (Manual vs. Automated; Scripted vs. Exploratory; Unit Testing; Integration Testing; System Testing; Regression Testing; Black Box vs. White Box)
3	• How Tested Is It? • Coverage Metrics I • Coverage Metrics II
4	• How to Write a Simple Random Tester • Random Testing: Not Just For Toys • Lessons Learned in Software Testing: Reporting Bugs and Working Well With Others • Lessons Learned in Software Testing: Planning and Strategy
5	• Lessons Learned in Software Testing: The Testing Role • Lessons Learned in Software Testing: Thinking Like a Tester • Lessons Learned in Software Testing: Testing Techniques
6	• Introduction to Debugging • Quick Intro to Debuggers • Introduction to open source project
7	• Causality and Localization I • Causality and Localization II
8	• Agans' Rules for Debugging • Software Inspections
9	• Integration Testing • Regression Testing
10	• Introduction to search based software Testing (SBST) • Introduction to Symbolic Execution Testing