

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	Assignments/Activities
1	<ul style="list-style-type: none"> Version control systems Forks, Pull requests, Branching Git, GitHub 	Assignment-1 (Introduction, GitHub) VCS quiz
2	<ul style="list-style-type: none"> 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) 	<ul style="list-style-type: none">
3	<ul style="list-style-type: none"> How Tested Is It? Coverage Metrics I Coverage Metrics II 	Assignment-2 (Introducing some bugs to the code) Code coverage quiz
4	<ul style="list-style-type: none"> 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 	Team formation for the final project Assignment-3 (Unit test creation)
5	<ul style="list-style-type: none"> Lessons Learned in Software Testing: The Testing Role Lessons Learned in Software Testing: Thinking Like a Tester Lessons Learned in Software Testing: Testing Techniques 	Final project
6	<ul style="list-style-type: none"> Introduction to Debugging Quick Intro to Debuggers Introduction to open source project 	Assignment-4(random tester) Final project-B

		Mid-term
7	<ul style="list-style-type: none"> • Causality and Localization I • Causality and Localization II 	•
8	<ul style="list-style-type: none"> • Agans' Rules for Debugging • Software Inspections 	Assignment-5(writing bug report)
9	<ul style="list-style-type: none"> • Integration Testing • Regression Testing 	•
10	<ul style="list-style-type: none"> • Introduction to search based software Testing (SBST) • Introduction to Symbolic Execution Testing 	Final Exam (during Finals week, TBD)