Course Syllabus

CSE 4313 3.0 Software Engineering Testing, Section M, Winter 2008

Instructor: Vassilios Tzerpos
CSEB 3024
Email: *bil@cse.yorku.ca*
Lectures: TR 11:30-13:00, CB 120
Office Hours: TR 13:15-14:15, CSEB 3024
Course Website: `http://www.cse.yorku.ca/course/4313`

Course Objectives

This course introduces systematic methods of testing various types of software systems. Upon successful completion of this course, students should:

1. understand the importance of systematic testing
2. understand the strengths and weaknesses of particular techniques and be able to select appropriate ones for a given situation
3. be able to produce test harnesses for large software systems
4. be able to produce quality problem reports based on their testing

Textbook

Author:	Paul C. Jorgensen
Title:	Software Testing: A Craftsman's Approach
Publisher:	CRC Press
Year:	2002
ISBN:	0-8493-0809-7

Material will also be drawn from a variety of other sources including:

- Kent Beck, *Test-driven development by example*.
- Robert Binder, *Testing Object-Oriented Systems: Models, Patterns, and Tools*.
- Cem Kaner, James Bach, Bret Pettichord, *Lessons Learned in Software Testing*.
- `http://www.testingeducation.org/`

Course website

The following can be found on the course website:

- Course Syllabus (this document)
- Overhead slides
- Readings
- Assignment Handouts
- Announcements (re: Lectures and Assignments, updated frequently)

Student Evaluation

Course Component	Weight	Due
Assignment 1	10%	Tuesday, February 5th at 11am
Term Test 1	20%	In class on Thursday, February 21st
Assignment 2	25%	Tuesday, March 11th at 11am
Term Test 2	20%	In class on Tuesday, April 1st
Assignment 3	25%	Monday, April 7th at 11pm

Both tests are open-book. All paper materials are allowed. No electronic equipment is allowed.

Course Schedule

Date	#	Topics
Thu, Jan 3	1	Module 1: Limits and Objectives of Testing
Tue, Jan 8	2	Module 2: Reporting and Analyzing Bugs
Thu, Jan 10	3	Module 2: Reporting and Analyzing Bugs
Tue, Jan 15	4	Module 3: Boundary Value Testing
Thu, Jan 17	5	Module 4: Equivalence Class Testing
—— *Last day to enroll without instructor's permission, Jan 17* ——		
Tue, Jan 22	6	Module 5: Decision Table-Based Testing
Thu, Jan 24	7	Module 6: Functional Testing Review
—— *Last day to enroll with instructor's permission, Jan 25* ——		
Tue, Jan 29	8	Module 7: Path Testing + Coverage
Thu, Jan 31	9	Module 8: Data Flow Testing
Tue, Feb 5		**Assignment 1 Due**
Tue, Feb 5	10	Module 9: Structural Testing Review
Thu, Feb 7	11	Module 10: State-Based Testing
Reading Week Feb 11 – Feb 15		
Tue, Feb 19	12	Module 10: State-Based Testing
Thu, Feb 21	13	**Term Test 1**
Tue, Feb 26	14	Module 11: Test Automation / JUnit
Thu, Feb 28	15	Module 12: Testing and Inheritance
Tue, Mar 4	16	Module 13: GUI Testing
Thu, Mar 6	17	Module 13: GUI Testing
—— *Last day to drop without receiving a final grade, Mar 7* ——		
Tue, Mar 11		**Assignment 2 Due**
Tue, Mar 11	18	Module 14: Swing Review
Thu, Mar 13	19	Module 15: Test harness design (Abbot)
Tue, Mar 18	20	Module 16: Integration Testing
Thu, Mar 20	21	Module 16: Integration Testing
Tue, Mar 25	22	Module 17: System Testing
Thu, Mar 27	23	Module 18: Testing Patterns
Tue, Apr 1	24	**Term Test 2**
Mon, Apr 7		**Assignment 3 Due**