Syllabus ST: Software Testing Methodology CS 4/69995 Fall 2017

Instructor Information

Dr. Gregory S. DeLozier gdelozie@kent.edu

Office Hours: 6-7PM 9:45-10:45PM MW in class or CS213 as requested, by appointment

Outcomes and Expectations

Students in this course will learn professional software testing methodologies, including requirements-based testing, test-driven-development, integration and regression testing, infrastructure testing, and exploratory testing skill. The class will cover these methodologies at different levels of the technology stack, using a variety of tools. Finally, the class will cover the purpose and value propositions of test activities.

Additional research work and projects in current testing tools and methods will be assigned to graduate students.

Required and Optional Textbooks and Materials

There is no required textbook. Optional textbooks:

<u>Test-Driven Development with Python</u>

Harry J. W. Percival, O'Reilly Media 2015

Testing Computer Software, 2nd Edition

Cem Kaner, et. al., Wiley 1999

Agile Testing: A Practical Guide for Testers and Agile Teams

Lisa Crispin and Janet Gregory, Addison Wesley 2009

Additional online reading will be assigned.

An account at www.pythonanywhere.com is required. This costs \$5/month.

A personal computer running Python and Chrome or Firefox is required.

Course Prerequisites

This course requires basic programming skills. Familiarity with Python and web programming is useful. Students who do not have this experience will need to learn these as we go. This may be challenging.

Enrollment/Official Registration

The official registration deadline for this course is 09/03/17. University policy requires all students to be officially registered in each class they are attending. Students who are not officially registered for a course by published deadlines should not be attending classes and will not receive credit or a grade for the course. Each student must confirm enrollment by checking his/her class schedule

(using Student Tools in FlashLine) prior to the deadline indicated. Registration errors must be corrected prior to the deadline.

General Class Calendar

Lectures: Monday, Wednesday, 8:15-9:45

Week 1 - class introduction, testing frameworks

Week 2 - application testing, levels and tools

Week 3 - exploratory testing, lab exercise exercise

Week 4 - behavior driven testing

Week 5 - acceptance, performance

Week 6 - midterm

Week 8 - regression testing

Week 9 - continuous integration

Week 10 - environment testing

Additional - special projects

Final: 8:15-10:30 Dec 11 (unless we move online)

Withdrawal Deadline

The course withdrawal deadlines are:

9/10/17 without 'W' 11/5/17 with 'W'.

Grading Policy

| Homework. Homework is not accepted late. | 20% |
|---|-----|
| Midterm. In class, open handwritten notes. | 20% |
| Class application work done and tested. | 20% |
| Final exam. In class, open handwritten notes. | 40% |

Letter Grades: 90% = A, 80% = B, 70% = C, etc.

Class Attendance Policy

Students are encouraged to attend class. If class is missed, students are still responsible for course content, notes, etc. The class slides are _not_ guaranteed to cover all important content from the class session.

There may be extra credit opportunities during class sessions. These will not be announced in advance.

Cheating and Plagiarism

University policy 3-01.8 deals with the problem of academic dishonesty, cheating, and plagiarism. None of these will be tolerated in this class. The sanctions provided in this policy will be used to deal with any violations. If you have any questions, please read the policy at

http://www.kent.edu/policyreg/administrative-policy-regarding-student-cheating-and-plagiarism

or ask me at any time.

Students with Disabilities

University policy 3-01.3 requires that students with disabilities be provided reasonable accommodations to ensure their equal access to course content. If you have a documented disability and require accommodations, please contact the instructor at the beginning of the semester to make arrangements for necessary classroom adjustments. Please note, you must first verify your eligibility for these through Student Accessibility Services (contact 330-672-3391 or visit www.kent.edu/sas for more information on registration procedures).

Additional Class Policies

Class Conduct

- The usual rules about adult behavior apply.
- Keep the laptop and phone distraction to a minimum when we're doing things together.
- We will have one or two breaks. If you need to leave between breaks, be discreet.

Extreme Circumstances

- If something unusual is happening at the university, we might not have class if the university is closed.
- If something unusual happens to me, and I'm not here by 7:30, we won't have class.
- If either one of these happens, adjusted homework and lecture notes will be posted on the web within 24 hours. You will still be responsible for getting assignments done.