

## STA255H1S STATISTICAL THEORY

### Course Description:

This course will attempt to lay some mathematical foundations of the material typically covered in a course like STA250F, one of the prerequisites. That course and the university-level single variable calculus prerequisite will be used extensively throughout the course. The course will consist of the material presented during lectures. Topics to be covered include discrete and continuous probability distributions, conditional probability, expectation, sampling distributions, estimation and testing, the linear model (if time).

### Course Schedule:

Lectures: Thurs 6-9 pm

**Instructor:** Mahinda Samarakoon

**E-mail:** mahinda@utstat.toronto.edu

**Web page:** <http://www.fisher.utstat.toronto.edu/~mahinda>

**Office:** SS6008

**Office hours:** Thurs 2-4pm

### Textbook

*Mathematical Statistics with Applications*, 6th edition, by Wackerly, Mendenhall, and Scheaffer, together with the Student's Solution Manual. All suggested problems will be from this text.

### Evaluation

The grading scheme will be as follows:

Two 50-minute term tests (T1 and T2), held during tutorial on February 3 and March 24, worth 15% each, 2 assignments (5% each); and a three-hour final exam (FE) 60%.

Term mark equals  $T1+T2$  + assignments. Grade =  $FE+Term$ . If your final exam grade exceeds your test average, its weight will be increased from 60% to 70% (each test decreased to 10%).

### Missed a test? see the section in the Academic Handbook

If you miss a test due to illness, you must submit a 'U of T Student Medical Certificate' form obtainable from your college registrar, or the Statistics departmental office, which should be filled in by your doctor. If you do not submit this, your grade on the missed test will be zero. There are no make-up tests, so if excused from writing a test, the weight will get shifted to the next test/exam that you write.

## **Tutorials**

Every week a selection of exercises will be assigned. The tutors will then demonstrate some of the solutions for you in tutorial, should you choose to attend. The tutors will also have weekly office hours for individual consultation. Your tutorial will be assigned to you according to your family name. Any changes are between you and the TA's. I will only intervene if one tutorial is overfull. Your term work will be returned in tutorial.

If the test is missed for a valid reason, you must submit appropriate documentation to the course instructor within one week of the test. Print on it your name, student number, course number, and date. If documentation is not received in time, your test mark will be zero. If a test is missed for a valid reason, its weight will be shifted to the final exam.