

PROBABILITY & STATISTICS II (STA261) L0101  
SYLLABUS  
WINTER 2014

Instructor: Dr. Radu Lazar  
Office: 6026 Sidney Smith Hall  
Office hours: W 1:15p.m.-2:40 p.m., and also by appointment  
Email: lazar@utstat.toronto.edu  
TA's:

Tramontozzi Daniel	daniel@utstat.utoronto.ca
Veitch Victor	victor@utstat.utoronto.ca
Wu Weichi	weichi.wu@mail.utoronto.ca
Entezari Reihaneh	entezari@utstat.utoronto.ca
Ferreira Tadeu	taaferrera@gmail.com
Gao Yun	gao@utstat.utoronto.ca
He Peiyang	heppy1227@hotmail.com
Homayounfar Namdar	namdar@utstat.utoronto.ca
Qin Zhen	zhenqin@utstat.utoronto.ca

TAs' office hours: TBA  
If you need help with the class you can see me or any of the TA's during their office hours.

**Lecture: Where and When**

M 3:00 p.m. – 5:00 p.m., AH100  
W 3:00 p.m. – 4:00 p.m., AH100

**Course description**

This is the second part of the introductory mathematical statistics course whose main goal is to promote understanding of statistical theory (especially statistical inference) with topics covering sampling distributions, estimation techniques such as method of moments and maximum likelihood, confidence intervals, hypothesis testing, linear models etc.

**Required textbook**

*Mathematical Statistics with Application*, 7-th edition, by Wackerly, Mendenhall, and Scheaffer

**Course website**

The website for this course is hosted on Blackboard. A university ID and password are required to access Blackboard courses.

**Calculator**

A basic 5-function calculator is necessary for this course.

**Grading**

Your grade will be determined by a weighted average of weekly quizzes and exams as follows:

Quizzes	15%
Midterm Exam	35%
Final Exam	50%

### Examinations

There will be a two-hour midterm exam and a three-hour final exam. The final exam will be cumulative with the emphasis on the material not yet tested.

Exam	Location	Time	Date
Midterm 1	AH100	3:00p.m. – 5:00p.m.	Monday, February 10 (subject to change)
Final	TBA	TBA	TBA

### Missed examinations

No make-up exam will be given. If you miss the midterm exam for a legitimately documented reason, such as illness confirmed with a written excuse, your total exam grade will be based on the final exam. If you cannot attend the final for a legitimately verifiable reason you must provide a written excuse to receive an incomplete.

### Examination guidelines

You will be allowed one 8.5x11 reference sheet with formulae and notes but no examples (both sides can be used) for the midterm and two such sheets for the final. Remember to bring your own calculator for all tests (sharing is not permitted). You will not be allowed to use cell phones, smart phones, ipods and ipads during any of the exams. Your student ID will be required for all exams. You will not be allowed to take the exam if you are more than 15 minutes late. You will not be allowed to leave the exam room without submitting your completed exam after the exam has begun.

### Accommodations for Students with special needs

Any student with special needs should bring to my attention as soon as possible, but no later than the second week of class.

### Homework

There will be weekly homework assignments but they will not be collected/graded. You have to solve the assigned problems in order to do well on quizzes and exams.

### Tutorial activities

The tutorials will comprise of two parts. In the first part of the tutorials the TA's will review the material taught in class and do some examples. In the second part, you will be taking a quiz based on the homework assigned. A student will receive any credit if she/he is not in the classroom at the time the quiz is handed out. The lowest two quiz scores will be dropped in order to accommodate for the activities that you are unable to complete due to illness, religious observance, late registration or any reason beyond your control.

### Course support

Please take advantage of the TAs' office hours. There are nine TAs for this class and you can get help from all of them. Do not fall behind since it would be difficult to do well in this class otherwise. (Statistical topics build on each other). You should read the textbook (do not skip the solved examples in each chapter) and what I teach in class. There are also plenty of mathematical statistics books such as Statistical Inference by Casella and Berger (it is written at a higher level), Mathematical Statistics and Data Analysis by Rice. An Introduction to Mathematical Statistics and Its Applications by Larsen and Marx, etc

### Academic integrity

The University of Toronto's academic integrity policy is designed to ensure that the principles of academic honesty and integrity are upheld. All university students are expected to abide by it. All acts of academic dishonesty will be handled according to the academic integrity policy. Additional information can be found <http://www.utoronto.ca/academicintegrity/>

Since STA261 is a very large class please be respectful of everyone else in the classroom. Please switch off your cell phones while class is in session.

### Tentative schedule (subject to change)

Week 1	Review, Chapter 7- Sampling Distribution and CLT
Week 2	Chapter 8 Estimation (Sections 8.1-8.4)
Week 3	Chapter 9- Properties of Point Estimators (Sections 9.1-9.5)
Week 4	Chapter 9-Methods of Estimations (Sections 9.6-9.8)
Week 5	Chapter 8 Confidence Intervals (Sections 8.5-8.9)
Week 6	Midterm, Chapter 10-Hypothesis testing (Sections 10.1-10.2)
Week 7	Break
Week 8	Chapter 10 continued (Sections 10.3-10.7)
Week 9	Chapter 10 continued (Sections 10.8-10.12)
Week 10	Chapter 11 Linear models (Sections 11.1-11.3)
Week 11	Chapter 11 continued (Sections 11.4-11.6)
Week 12	Chapter 14 Categorical Data (Sections 14.1-14.4)
Week 13	Chapter 14 Continued (Sections 14.5-14.6), Review

**Note:** It is your responsibility to keep track of the material that will be taught. Any change to the schedule, including the chapters/sections covered will be announced in class and on Blackboard.