

STA261H1S – Summer 2017

Instructor Neil Montgomery
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Office Hours Monday and Wednesday 17:00-18:00
Office BA8137 until further notice
Course Website <http://portal.utoronto.ca>
Github <http://github.com/sta261-summer-2017>

General Information

The course website will be an important source of official news and information. Lecture materials will be placed on Github.

This course is a “rigorous introduction to the theory of statistical inference and to statistical practice. Statistical models, parameters, and samples. Estimators for parameters, sampling distributions for estimators, and the properties of consistency, bias, and variance. The likelihood function and the maximum likelihood estimator. Hypothesis tests and confidence regions.” In addition, at the beginning of the course students will be brought up to speed on the properties of samples from normal populations.

The course is based on the lectures. As a text, the primary resource will be *Mathematical Statistics and Data Analysis* 3rd Ed. by Rice, which is very easy to find.

Topic	Textbook sections
Multivariate transformations	3.6
Properties of sample from normal populations	6.1-6.3
Estimation	8.1 to 8.5; 8.7 to 8.8
Hypothesis testing	9.1 to 9.4
A variety of other topics, time permitting	Various

Given the nature of a summer course we may not be able to cover all of these topics.

Evaluation

The grading scheme will be as follows:

- **25% – Term Test I** – 1h 50min minute term test held on 2017-07-19 from 18:10 to 20:00 in EX100 (There may be class after starting at 20:30.)
- **25% – Term Test II** – 1h 50min minute term test held on 2017-08-02 from 18:10 to 20:00 in EX100 (There may be class after starting at 20:30.)
- **50% – Final Exam** – Held during the exam period and will cover the entire course.

Missed Term Work

You should not tests when you are sick. It is far, far better to miss a test with some documentation than it is to write a test in the middle of an illness and ask for special consideration after the fact. Use the Faculty term work petition system for these situations.

Missed term work due to any other reason will require similar, if not more stringent documentation.

The weight of any missed term work will be given proportionately to the other components of the final grade.

Reviewing Marks

It is very important that your work be evaluated fairly. The instructor is committed to ensuring that a fair evaluation takes place, from the setting of test questions, to the time you are given to complete the work, to the physical environment in which the evaluation takes place, and to the marking of the work itself.

Your term work will be returned to you in tutorial. You are allowed to have your marks reviewed if you believe there has been an error made. For this course you must follow the following procedures:

1. Make sure the total mark you received is the sum of the marks awarded per question and that all work was marked. If not, you must notify the TA immediately to have the error corrected.
2. If you disagree with the number of marks awarded return your work to the instructor with a **brief written** description of the issue.

All matters relating to the final exam fall under the jurisdiction of the Faculty itself. Consult its regulations for further details.

Tutorials

I will suggest problems from the textbooks and other resources. The TAs will solve a selection of these problems in tutorial before class. There will be no tutorial on test days (obviously.)