

# ECO 220 Y L0101/L0501: Quantitative Methods

Summer 2012 Second Term

**Instructor:** Migiwa TANAKA

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Office Hour: W1-3 at 150 St. George Street, Economics Department Room 266

**Meeting Time and Location:**

Section L0101: Lecture TR2-4, Tutorial/Lecture M3-5, at MP203,

Section L0501: Lecture TR5-7, Tutorial/Lecture M5-7, at BA1180

**TA resources:** Announced on the course website.

**Course Website:** The university portal (Blackboard).

## 1. Prerequisite:

ECO100Y1(67%) / ECO105Y1(80%); MAT133Y1/(MAT123H1, MAT124H1) /  
MAT135Y1/MAT137Y1/MAT157Y1

Note that an administrator will remove you if your prerequisites are incomplete.

## 2. Learning Outcomes:

At the completion of this course, you should be able to:

- A. Explain basic concepts of statistics.
- B. Interpret statistical information presented in various sources.
- C. Evaluate the validity of claim based on statistic data
- D. Read and interpret the outputs from statistical analysis software packages including STATA.
- E. Use Excel to perform statistical analysis.
- F. Analyze data using statistical methods, interpret the results, and draw conclusion.

## 3. Required Textbook:

The required textbook is a custom book that is a proper subset of the First Canadian Edition of *Business Statistics* by Sharpe, De Veaux, Velleman, and Wright. A package, complete with a full solutions manual and access to MyStatLab, is available at the U of T Bookstore. When registering for MyStatLab at [www.pearsoned.ca/mystatlab](http://www.pearsoned.ca/mystatlab), please use course ID tanaka32834. Other textbooks are not substitutable.

#### 4. Class Meeting:

The lectures are given at the scheduled time as above for each session. Tutorial sessions will be given on Mondays but these hours may be used for makeup lectures. Therefore, you should not schedule any other activity during these hours. Lecture slides are posted on the course website prior to the lecture. You should print them out in your preferred format and bring them to the lecture so that you can take notes. Mature conduct in classroom is the requirement for this course. In lectures, you are expected to:

- Arrive on time.
- Switch off cell phone and other communication devices before the lecture starts.
- Respect learning opportunities of others. Do not chat with neighbors and disrupt others.

Distracting behavior is not tolerated.

#### 5. Assessment Scheme and Course Organization:

Your course grade is determined by 3 term tests (2 in the first term and 1 in the second term), the Excel test and the final examination. The detail on each assessment is summarized as follows.

Assessment	% of grade	Length	Dates, Time
<b>First Term (Term Test #1&amp;2)</b>	32 %	Refer to Prof. Yu's Syllabus.	
<b>Term Test #3</b>	22%	90 minutes (incl. 10 minutes of preparation)	July 23 L0101: 15:30-17:00 at BA1160 L0501: 17:00-18:30 at BA2165
<b>(Makeup test for Term Test #3)</b>	--	90 minutes (incl. 10 minutes of preparation)	August 1, 15:30-17:00
<b>Quizzes</b>	4%	During tutorials	
<b>Excel Test</b>	8 %	TBA	
<b>Final Exam</b>	34 %	3 hours	TBD -Exam Period (August 14-17)

##### 5.1. Homework

On each lecture day, homework problems will be posted on the course website. Although they are not graded, completing them on time is essential for your success in this course.

## 5.2. Grading

For term test and final exam, a machine marks multiple choice questions. Your mark and machine –read responses will be posted at the grade centre on the portal as soon as possible. For long answer questions, handwritten marks include the points you earned and, if applicable, the following symbols.

Symbol	Near the part of your answer that is
X	Incorrect
?	Logically unclear, confusing or illegible
⊕	Imprecise, incomplete, insufficiently shows work (Idea: plus more)

For long answer questions, earning partial credit requires that some part of your answer is clearly correct, directly relevant to the question asked, and not contradicted by other parts of your answer. I accept application for re-grades if it: (1) Is made in writing and given to me along with your entire assessment, (2) Clearly specifies which questions were improperly marked and explains why, (3) Is submitted within **two weeks** after the test date. The entire assessment will be re-graded, not just the disputed parts. Your grade can go up, down or remain unchanged. These conditions do not apply to clerical errors such as adding up your score wrong. If a clerical mistake occurs, please let me know as soon as possible.

## 5.3. Missed Term Work

In order to obtain credit for this course, it is important for you to complete term work in a timely manner. If you feel that is difficult, I encourage you to postpone taking this course. If you have to miss any of the term tests for reasons beyond your control, you should contact me before the test either by e-mail or in person. In order to qualify for the special consideration, you must take following steps:

**[Step 1]** Contact me by using your **U of T e-mail account as soon as possible**. No consideration will be given to your request if you do not contact me **within 24 hours of the test**. In your correspondence with me, you should mention (1) your full official name, (2) student ID number, (3) your section number, and (4) the reason for your absence.

**[Step 2]** Present a **written proof** that shows why you could not attend the test **within 7 days after the test**. If the absence is for medical reasons, you must provide a U of T medical certificate, available at

[http://www.artsci.utoronto.ca/current/undergraduate/course/timetable/1213\\_fw/medcert.pdf](http://www.artsci.utoronto.ca/current/undergraduate/course/timetable/1213_fw/medcert.pdf).

**[Step 3]** I will notify you the detail of the makeup test if you are considered qualified for the makeup test after verifying your information.

**[Step 4]** You will write a makeup test on August 1<sup>st</sup>, 2012.

Note that there is **only one** chance of makeup test and there is no makeup test for the makeup test.

#### 5.4. Excel Training Sessions and Excel Test

You are required to take the Excel Course Module (ECM) that complements this course. The ECM will start in July. The Excel Instructor, Christy Chen, will contact you regarding the training session schedule and you will have chance to sign up for them. The session takes place in computer lab and you will learn how to do statistical analysis using an augmented version of Excel. These sessions will prepare you for the Excel test, which will be given by Instructor Chen.

### 6. Course Materials:

Following is the list of chapters from the required textbook that are covered in this course. A detailed schedule is available on the course website. Students are expected to read the part that is announced on the course website before the lecture.

Chapter 1: An Introduction to Statistics

Chapter 2: Data

Chapter 3: Survey and Sampling

Chapter 4: Displaying and Describing Categorical Data

Chapter 5: Displaying and Describing Quantitative Data

Chapter 6: Randomness and Probability (Excluding Section 6.9 Reversing the Conditioning: Bayes's Rule)

Chapter 7: Scatterplots, Association, and Correlation

Chapter 8: Introduction to Linear Regression

Chapter 9: Random Variables and Probability Distributions (Excluding Section 9.7 The Poisson Distribution and 9.11 The Exponential Distribution)

Chapter 10: Sampling Distributions

Chapter 11: Confidence Intervals for Proportions (Excluding Section 11.5 A Confidence Interval for Small Samples)

Chapter 12: Testing Hypotheses about Proportions

Chapter 13: Confidence Intervals and Hypothesis Tests for Means

Chapter 16: Inference for Counts: Chi-Square Tests (Only Section 16.5 Confidence Intervals for the difference of Two Proportions)

Chapter 18: Inference for Regression

Chapter 19: Understanding Residuals

Chapter 20: Multiple Regressions (Excluding Section 20.7 The Logistic Regression Model)

Chapter 21: Building Multiple Regression Models

## 7. **Study Resources:** Discussion Board

I encourage you to use the discussion board on the Blackboard. Our TAs will regularly monitor the activities, but I expect students to post and answer questions by themselves. Answering questions from peers can create valuable learning experience.

## 8. **E-mail Etiquette**

If you have any questions about course materials, please ask me in person, before and after lectures, or during office hours. You should not expect a response from me by e-mail if the subject is the course material. Instead, please post your questions on the discussion board on the portal. If you need to contact me for other matters regarding the course via e-mail, you should be aware of following guidelines. An e-mail not following the guidelines may not be answered.

- The e-mail has to be sent from your U of T e-mail account (@mail.utoronto.ca).
- Subject of your e-mail should include course code (ECO220Y) and section number (L0101 or L0501).
- Your official name should be included in the text.
- You should review the syllabus before sending a question to me.
- Your e-mails should be written in concise and professional manner. Consider this an opportunity to learn business etiquette. For instance, the use of casual language such as “how r u?” or emocons, is not appropriate in this situation.
- I will make an effort to reply to your e-mails as soon as I can but my response may take 2 business days.

## 9. **Academic Integrity**

*“Academic integrity is a fundamental value essential to the pursuit of learning and scholarship at the University of Toronto. Participating honestly, respectfully, responsibly, and fairly in this academic community ensures that the UofT degree that you earn will continue to be valued and respected as a true signifier of a student’s individual work and academic achievement. As a result, the University treats cases of*

*academic misconduct very seriously. The University of Toronto's Code of Behaviour on Academic Matters*

*(<http://www.governingcouncil.utoronto.ca/policies/behaveac.htm>) outlines the behaviours that constitute academic misconduct, the processes for addressing academic offences, and the penalties that may be imposed. You are expected to be familiar with the contents of this document.” –Academic Integrity Handbook, Office of Student Academic Integrity, Faculty of Arts and Science, University of Toronto.*

Our TAs and I will be vigilant over plagiarism and investigate any suspected case thoroughly, irrespective of whether it is intentional or unintentional.

### **10. Accommodations and Accessibility**

If you have a disability and/or accessibility concern, and require accommodations, you are encouraged to contact Tanya Lewis, Director, Academic Skills and Accessibility Services at 416-978-6786; [tanya.lewis@utoronto.ca](mailto:tanya.lewis@utoronto.ca), immediately. They will provide you with relevant information and make necessary arrangements with you. The Academic Skills and Accessibility Services' website is given as follows:

<http://www.accessibility.utoronto.ca/>.