ECO 220 Y L0101/L0201: Quantitative Methods

Fall 2010/Winter 2011

Instructor: Migiwa TANAKA

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Office Hour: Tuesday 3-5pm at 150 St. George Street, Economics Department Room 222

Meeting Time and Location:

Section L0101: M10-12, F11 at SS2135

Section L0201: T10-12 at LM162, F10 at LM159

TA resources: Announced on the course website.

Course Website: http://individual.utoronto.ca/mtanaka/ECO220.html and 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 Outcome:

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:

Keller, Gerald "Statistics For Management and Economics" 8th Edition, South Western (Custom edition is available at the U of T book store)

4. Class Meeting:

The lectures are given at scheduled time as above for each session. Tutorial sessions will be given on Fridays but these hours may be used for makeup lectures. Therefore, you should not schedule any other activity during these hours or at least should find out what is going on if you miss any. 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 behaviors are not tolerated.

5. Assessment Scheme and Course Organization:

Your course grade is determined by 4 term tests, the Excel test (in winter session) and the final examination. The detail on each assessment is summarized as follows.

Assessment	% of grade	Length	Dates, Time
Term test #1	16 %	80 minutes	October 29,
			10:20-11:40am
Term test #2	16 %	120 minutes	TBD -Exam Period
			(December 10-21)
Term test #3	10%	50 minutes	February 11
			11:10-12:00 for L0101
			10:10-11:00 for L0201
(Makeup test for #		80 minutes	February 18
1,2,3)			10:20-11:40am
Term test #4	16 %	80 minutes	March 11
			10:20-11:40am
Excel test	7 %	TBA	
Final exam	35 %	3 hours	TBD -Exam Period
			(April 12-29)

Because of the nature of our course material, the tests and the examination are cumulative. Please contact me <u>at least 2 weeks before the test</u> if you have any schedule conflict with any other class on those days. Late requests will not be accommodated.

5.1. Homework

Each week, 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 tests and final exam, a machine marks multiple choice questions. Your mark and machine –read responses will be compiled in one file with last 4 digits of students ID and posted online as soon as possible. If you have any concern about your privacy and do not wish your mark to be included in the file, please contact me at least a week before the test.

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		
х	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 four 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 (1) contact me **before** the test and (2) present a **written proof** that shows why you could not attend the test, and (3) record your absence using ROSI Absence Declaration. If you do not meet these criteria, your mark on the test will be recorded as 0. 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. This consideration is given **only once** during this course. If you foresee missing more than one term test, you are encouraged to take the course in another year. **One** common cumulative makeup test will be given on February 18th, 2011 for those who miss term tests 1, 2, or 3. Those who miss term test 4 will be given an oral test, which accounts for 5% of the grade, and the balance will be shifted to the final exam.

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 January. 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. We cover all materials except for the sections labeled (Optional) in the textbook and those excluded below. 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.

-Fall Semester-

Chapter 1: What is Statistics?

Chapter 2: Graphical and Tabular Descriptive Techniques

Chapter 4: Numerical Descriptive Techniques

Chapter 5: Data Collection and Sampling

Chapter6: Probability (Excluding Section 6.4, Bayes's Law)

Chapter7: Random Variables and Discrete Probability Distribution (Excluding Section 7.5

Poisson Distribution)

Chapter8: Continuous Probability Distributions (Excluding Chi-Squared Distribution)

Chapter9: Sampling Distributions

Chapter 10: Introduction to Estimation

-Winter Semester-

Chapter11: Hypothesis Testing

Chapter12: Inference about a Population (Excluding Section12.2 Inference about a

Population Variance)

Chapter 13: Inference about Comparing Two Populations (Excluding Section 13.3 Matched

Pairs Experiment and Section 13.4 Ratio of Two Variances)

Chapter 16: Simple Linear Regression and Correlation

Chapter 17: Multiple Regression

Chapter 18: Model Building

7. Study Resources:

7.1. The Economic Study Centre

The Economics Study Centre provides peer mentoring system to students taking this course. Please see the following website for further details.

http://www.economics.utoronto.ca/index.php/index/undergraduate/load/studyCentre

7.2. Discussion Boards

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 hour. You should not expect a response from me by e-mail if the subject is the course material. If you need to contact me for other matters regarding the course via e-mail, you should be aware of following.

- Subject of your e-mail should include course code (ECO220Y) and section number (L0101 or L0201).
- Your official name should be included in the text.
- You should review the syllabus before sending questions to me.
- Your e-mails should be written in concise and professional manner. Consider it as 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 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, 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/.