# ECO374H1S, Applied Econometrics, Fall 2013

| Lecture:                          | Tuesday, 10:00am-noon, location: UC163                |  |
|-----------------------------------|---|--|
| Instructor:                       | Yuanyuan Wan  |  |
| Office:                           | Room 232, Max Gluskin House, 150 St. George St        |  |
| Phone:                            | 416-978-4964  |  |
| Email:                            | yuanyuan.wan@utoronto.ca                              |  |
| Instructor Office Hours:          | Tuesday, 3:30pm-4:30pm (drop in);                     |  |
|                                   | Thursday, 3:30pm-4:30pm (by appointment)              |  |
| Teaching Assistant:               | Jan Dee   |  |
| <b>Teaching Assistant Email</b> : | jan.dee@mail.utoronto.ca                              |  |
| Tutorial:                         | Friday noon; location: UC163.                         |  |
| <b>TA Office Hours</b> :          | 2-4pm, Friday; location: Room 40 at Max Gluskin House |  |

# **Course Description**

The primary objective of the course is to provide students with a solid theoretical and practical foundation for the interpretation of empirical evidence in economics. The course is built upon the statistical foundations of the multiple regression model and time series analysis, with examples drawn from business and financial economics. Students will gain practical experience working with economic and financial data.

# Textbook

*"Forecasting, Time Series, and Regression"* by Bowerman, O'Connell, and Koehler, 2005, 4th edition, Brooks / Cole (Cengage Learning). ISBN-13: 9780534409777, ISBN-10: 0534409776

The book will be available at University of Toronto Bookstore. Make sure that the book you buy <u>contains</u> <u>a CD with data</u>.

## **Previous Training:**

| Prerequisites: | (i) ECO200Y1 or ECO204Y1 or ECO206Y1                       |
|----------------|--|
|                | (ii) ECO220Y1(70%) or ECO227Y1 or (STA257H1 plus STA261H1) |
| Recommended:   | MAT223H1 or MAT240H1                                       |
| Exclusion:     | ECO327Y1 or ECO375H1, STA302H1                             |

## Software

We will make regular use of statistical functions and add-ins of Excel throughout the course. Excel can perform the same operations as alternative expensive software packages for the material covered in the course and should be generally accessible anywhere.

# **Course Website**

Lecture notes will be posted in the Blackboard Course Materials in advance. The Blackboard site will also be used manage class communications. Check the announcements posted there regularly. The Blackboard is accessible through: <u>https://portal.utoronto.ca</u>.

# **Score Policy**

The final score is based on four parts: quiz, writing assignment, midterm exam and final exam. The weights are shown in the table below.

## Quiz (10%)

There will be four pop quizzes. Each of them shall take no more than 15 minutes to complete. The purpose of the quiz is to help students consolidate the materials of the previous lectures and to provide me feedbacks. If a student misses a quiz, then he/she receives zero mark for the missed quiz. At the end of the semester, two highest scores will contribute to your course evaluation, each account for 5%.

## Writing Assignment (20%)

There is one short writing assignment. The topic and detailed requirements will be posted on Portal before reading week.

- You have to complete the writing assignment by yourself. Group work is **NOT** allowed.
- Quantitative analysis is required in the writing assignment.
- The assignment is expected to be 8-10 pages, double space, font size 11, including tables (and figures if necessary).
- A late assignment will be penalized by 20% its actual score per day.

The Department of Economics prosecutes all cases of plagiarism vigorously. This includes "unintentional" plagiarism. Ignorance of the rules of plagiarism is specifically excluded as a defence.

**University disclaimer concerning Turnitin.com**: "Normally, students will be required to submit their course essays to Turnitin.com for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their essays to be included as source documents in the Turnitin.com reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of the Turnitin.com service are described on the Turnitin.com web site."

## Exams (30% midterm + 40% final)

We have a midterm exam and a final exam for this course. Midterm exam will cover the materials of the first five lectures. The final exam will cover the all lectures of the semester. The exams contain problems requiring short answers, and empirical questions (similar to the textbook exercises).

## Homework (optional)

I will give 6-8 optional homework assignments. The assignments contain both theoretic and computerbased questions, and serves only as practice. TA will go over ungraded assignments during tutorial sessions.

| Course Liveraution |         |            |  |
|--------------------|---------|------------|--|
| Tasks              | Weights | Due Dates  |  |
| Quiz               | 10%     | TBA        |  |
| Writing Assignment | 20%     | December 9 |  |
| Midterm exam       | 30%     | October 23 |  |
| Final exam         | 40%     | TBA        |  |
| Total              | 100%    |            |  |

#### **Course Evaluation**

# **Planned Course Outline**

The following is the planned course outline (subject to minor changes). Students are recommended to preview the corresponding chapters before lectures.

| Week                 | Course materials                     | Reference       |
|----------------------|--------------------------------------|-----------------|
| Week 1, September 10 | Introduction and Statistics Review   | Chapter 1 and 2 |
| Week 2, September 17 | Statistics Review (cont'd)           | Chapter 2       |
| Week 3, September 24 | Simple Regression                    | Chapter 3       |
| Week 4, October 1    | Multiple Regression                  | Chapter 4       |
| Week 5, October 8    | Model Building and Residual Analysis | Chapter 5       |
| Week 6, October 15   | Time series                          | Chapter 6       |
| Week 7, October 22   | Midterm exam                         | Chapter 1-5     |
| Week 8, October 29   | Decomposition methods                | Chapter 7       |
| Week 9, November 5   | Exponential Smoothing                | Chapter 8       |
| Week 10, November 12 | Fall Break                           | No class        |
| Week 11, November 19 | Box-Jenkins Methods I                | Chapter 9       |
| Week 12, November 26 | Box-Jenkins Methods II               | Chapter 10      |
| Week 13, December 3  | Selected topics                      | Chapter 11      |
| Exam period          | Final exam                           | All lectures    |

# **Course Policy**

## **University Attendance Policy**

Attendance in all lectures is expected and strongly recommended of all students. Lecture notes serve as lecture outlines and are not substitutions of the lecture themselves.

## Make-up Exams and Medical Notes Policy

A grade of zero will be given to students who do not write the test, unless an appropriate and convincing note is received **<u>within one week</u>** of the missed test (explaining why the test was missed).

- Make-up exams will only be scheduled based on legitimate medical reasons or acute emergencies.
- An email notice must be sent to me <u>on the day of the exam</u>.
- Original legitimate supporting documents of absence are required (within one week). Scanned, copied, or emailed documents will not be accepted.
- When a student missed the exam for medical reasons, he or she shall provide an original copy of a fully completed University of Toronto official "Verification of Student Illness or Injury" form.

The certificate needs to be completed by a qualified medical doctor whose OHIP number must be provided. You can download the form from <u>http://www.illnessverification.utoronto.ca</u>.

- It is by the University policy that there are no "make-up exams" for make-up exams.
- A make-up exam will be different from the exam given in class.
- It is an academic offence for a student to use a medical note to avoid a test if he or she is not actually sick.
- The make-up exam will be on **November 8, Friday**.

#### **Grade Dispute**

Requests for re-grading homework and/or exams must be submitted to instructor in writing within one week that the exam and/or homework are returned. The instructor will re-grade the whole problem set and/or exam instead of a single question to ensure the consistency.

#### **Academic Honesty**

"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 (<u>http://www.governingcouncil.utoronto.ca/policies/behaveac.htm</u>) 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....All suspected cases of academic dishonesty will be investigated following the procedures outlined in the Code of Behaviour on Academic Integrity Handbook, Office of Student Academic Integrity, Faculty of Arts and Science, University of Toronto.

## **Email Policy**

I will reply emails within 24 hours, except on weekends and holidays, with the following provisions:

- The question should require a one (or two) sentence response (maximum). If it takes more, office hours are the more appropriate venue.
- o I will not reply to emails concerning grading. For such matters, office hours are more appropriate.
- It is also (strongly) preferable that you use the University of Toronto email addresses: my spam filter is set to maximum. Moreover, university policy stipulates a preference for these email addresses.
- o Always identify yourself, course and section in your email.
- Please do not send attachments of any kind.
- Please do not submit term work by email.
- The teaching assistant has one email-hour per week to reply course related questions.

## **Off-class Meetings**

I will hold two hours' office hour every week. It is reserved for one-to-one discussion of course materials. The teaching assistant will hold two hours' office hour and one hour tutorial session every week.

# **Accessibility Needs**

The University of Toronto is committed to accessibility. If you require accommodations for a disability, or have any accessibility concerns about the course, the classroom or course materials, please contact Accessibility Services as soon as possible: <u>disability.services@utoronto.ca</u> or <u>http://studentlife.utoronto.ca/accessibility</u>.