UNIVERSITY OF TORONTO AT SCARBOROUGH
DEPARTMENT OF MANAGEMENT

ECMD10H3 Syllabus: THEORY AND PRACTICE OF REGRESSION ANALYSIS
WINTER 2011

Instructor: Marco Gonzalez-Navarro
Location: MW 329, Wednesday 11:00am-1:00pm
Office hours: MW 388, Wednesday 9:00 am-11:00am
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COURSE DESCRIPTION

This is an advanced course building on ECMC11H3F. Students will master regression theory, hypothesis and diagnostic tests, and assessment of econometric results. Treatment of special statistical problems will be discussed. Intensive computer-based assignments will provide experience in estimating and interpreting regressions, preparing students for ECMD50H3S. Cross-section and time series modeling, as well as qualitative choice models will be covered. Examples of econometrics in a variety of areas will involve statistical analysis, problem solving and econometric estimation using a statistical computer package.

Enrolment is limited to students registered in programs requiring this course.
Breadth requirement: Quantitative Reasoning
Limited enrolment: 30
Exclusion: ECO327Y, STA302H, (ECMC12H)
Prerequisite: ECMB02H & ECMB06H & [[ECMB11H & ECMB12H] or ECMB09Y] & ECMC11H

COURSE OBJECTIVES

By this time, students should have a firm grasp of multiple regression mechanics and inference learned in ECMC11H3F. We will first focus on cross sectional issues and then move on to time series applications. The course contains some more specialized topics that are not usually covered in a one-term introductory course. Students will learn how to:

☐ apply multiple regression to independently pooled cross sections.

☐ apply the method of instrumental variables.

☐ use models for limited dependent variables.

☐ recognize potential pitfalls inherent in using regression with time series data that are not present for cross-sectional applications (trends, seasonality, and high persistence will be discussed).

☐ deal with serial correlation and heteroskedasticity in time series models.

☐ estimate dynamic relationships.

The course includes an extensive practical computing component. The main software package I intend to use is STATA.

TEXTBOOK

REQUIRED TEXT:

Jeffrey Wooldridge. *Introductory Econometrics A Modern Approach*, *4rd Edition,* South-Western Publishing, 2009.

We will follow this text closely. Although the lectures will generally follow the textbook, they will depart frequently. The most priority should be paid to the lectures first and then the text. If something is mentioned in the text but not at all in the lectures, place a low priority on that material. Topics will sometimes be covered briefly in class with the expectation that you study them more closely in the text. I will explicitly say when this is the case.

OTHER RECOMMENDED TEXTS:

Stock & Watson. *Introduction to Econometrics*, Addison Wesley, 2002

Angrist & Pischke. *Mostly Harmless Econometrics: An Empiricist's Companion*, 2008, Princeton University Press.

Supplementary course materials (readings, announcements, practice problems, solutions, etc.) will be posted on a class Blackboard site. Please check these pages frequently and stay up to date with the course.

SCHEDULE

Session	Material	Chapters
1	Regression Analysis (Review)	2,3
2	Regression Analysis (Review)	6,7
3	Experiments and Quasi-Experiments	TBD
4	IV and 2SLS	15
5	Panel Data Methods	13
6	Panel Data Methods	14
7	**Midterm Exam**	
8	Simultaneous Equation Models	16
9	Limited Dependent Variable Models	17
10	Regression Analysis with Time Series Data	10
11	Issues in using OLS with Time Series Data	11
12	Serial Correlation and Heteroskedasticity	12

EVALUATION

Problem Sets (4 x 10%) 40%
Midterm Test 30%
Final Exam 30%

The midterm test, as well the final exam, is closed book.
The final exam is cumulative of all the material taught.

Test Score appeals: appeals will be conducted according to the following procedure:
a) Please type a short paragraph explaining the grievance and why you should obtain additional points. Give a hard copy of this document to me.
b) Conditional on this argument being found persuasive by me, the entire exam will be re-graded. Your score can go up or down.
Grading is an imprecise science, points are often given that are not deserved and taken away when they are deserved. Please think carefully about your choice of whether to appeal a mark. Note: This does not apply to trivial appeals such as points being added incorrectly.

If you are unable to write the midterm test at its scheduled time because of illness or other compelling circumstances, you need to notify me by e-mail within 24 hours of the missed examination. I will send a receipt of confirmation of notice. You will also have to present documentation supporting your reasons for missing the examination no later than one week after the missed test. The minimum acceptable documentation is a University of Toronto Student Medical Certificate. The document has to specifically state your inability to write the test on the scheduled date and a diagnosis. There will be no makeup tests. If your supporting document is accepted, your final will account for 60% of the grade.

Failure to produce a medical note in time will result in a mark of 0 on the midterm. Other excuses (e.g. funerals and car accidents) must be accompanied by a note from a responsible adult that I can verify in order for excusal to even be considered. The validity of these excuses will then be evaluated by the undergraduate chair or myself.

To be considered, an illness must render the student incapacitated and unable to take the exam. Vague illnesses such as "gastroenteritis", "inability to concentrate" will not be considered. In addition, in order for a doctor's note to be accepted, the illness must be immediately verifiable to the doctor. Illnesses of the "student claims to be…" will not be accepted. In addition, "anxiety" or "stress" is not an acceptable excuse. If you have trouble with test conditions, please consult the Access Ability Resource Centre. It's webpage is http://www.erin.utoronto.ca/access/."
The only acceptable medical notes are those provided by the University of Toronto Student Medical Certificate (see the Registration Handbook & Timetable for a copy of the certificate). Generally:

1) Students can no longer simply declare themselves as having H1N1 or flu-like symptoms.
2) The office of academic misconduct imposes a punishment of suspension for 4 months for passing on fake sick notes.

I do not select the dates for examinations within the final exam period. You must not make travel, employment or other plans that may conflict with the date chosen for the examination in this

course and any such conflict will not be accepted as grounds for writing a deferred exam. Instructors cannot make special arrangements with students who miss the final exam for any reason.

E-MAIL PROTOCOL

I am happy to receive queries by email. However, please note that the subject line must contain ECMD10, otherwise the e-mail will be automatically categorized as spam and deleted. Also, if many messages on the same theme are received, I will respond in class and will not make individual replies.

a) I only respond to e-mails posing questions that can be answered in a sentence or three. For detailed questions, please see me in office hours.
b) I do not reply to e-mails that request information that can be found on the website or the syllabus, so you should check those places first.
c) I do not reply to e-mails regarding the results of graded material – for that, please see me in office hours.

COMPUTING

You will use STATA for the homeworks.