Wilfrid Laurier University
Waterloo, Ontario

Economics 655: Econometrics

FALL 2008

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NOTES:

1. The class schedule is compressed into 2 lectures of 2 hrs 30 mins per week. The term ends in mid-October with a 2 HOUR FINAL EXAM scheduled for Friday October 24th, 10:00-12:00.
2. Classes will be held at 232 King St. (see Campus Map at http://info.wlu.ca/wlu-hp/about/maps-2003/campusmap.shtml) in Room 110 (this room is on the main floor at the back of the building. Go through the doors of the Laurier Military Centre to reach this room. The room is in the right hand corner after you enter the Military Centre).
3. The FINAL class will be held Friday October 17th (NOT Thursday, October 16th) from 9-12.

Course Objectives

This course is designed to introduce students to some advanced econometric methods. While all students will have had some undergraduate econometrics training it is also advisable to keep an intermediate econometrics text on hand. Any intermediate econometrics text will do. Chapters 1 through 5, for example, in the Stock-Watson text (*Introduction to Econometrics* Boston: Addison-Wesley, 2003, HB139 .S765) provides all the necessary background material.

NOTE: A new edition (2007) is also available at the University of Waterloo. However, the earlier edition is perfectly fine for background preparation.

Some time will be devoted to reviewing basic econometric issues, and to introduce the *Eviews 6.0* software (see below). Familiarity with the World Wide Web is also assumed. *These lectures are NOT intended as a substitute for an intermediate econometrics course.*

Econometric theory plays a background role in this course. While theoretical underpinnings are important in understanding certain key concepts, and to motivate a particular technique, the focus of the course is to assist students in understanding how and when to use certain econometric methods, how to make inferences based on econometric estimates, and how to avoid *mis*-applying or misinterpreting econometric results. Hence, the "hands-on" application exercises are an important component of the course. *Eviews 6.0* is used throughout the graduate econometrics course. *Eviews 6.0* is a menu driven program with the possibility of creating your own programs to run in batch mode. It is available on the network drive, or you can purchase a student version (go to http://www.eviews.com/ for pricing details. Please note that the student version is unable to perform

some of the procedures used in class while the network version is).

While instruction on the *Eviews 6.0* program will take place through live class demonstrations throughout the course, two labs have been scheduled to permit some hands on experience with using the software for this course.

- LAB # 1: *Friday. Sept. 19 from 2:30 pm - 4:00 pm in room N1055 (Science Building)*;
- LAB # 2: *Friday. Oct. 3 from 2:30 pm - 4:00 pm in room N1055 (Science Building)*;

Attendance is strongly encouraged: Failure to attend will affect your ability to work efficiently with the software used in this course and your overall grade.

You will find useful information about the course on the course web site such as past outlines, exams, practice exams, and other useful information

(**go to** http://www.wlu.ca/sbe/psiklos and *click* on *Teaching*). The web page is password protected. Login and password information will be given out in the first class.

Lecture Structure

Lectures and course work will essentially be divided into three parts: the economic and econometric issues of interest (THEORY); data related issues and replication (DATA); and econometric practice (APPLIED ECONOMETRICS). Students will be expected to apply a wide variety of econometric techniques in their course work. As noted above, a significant portion of every class is spent giving "live" examples on *Eviews 6.0*.

"LEGAL STUFF"

Wilfrid Laurier University uses software that can check for plagiarism. Students may be required to submit their written work in electronic form and have it checked for plagiarism.

You are reminded that the University will levy sanctions on students who are found to have committed, or have attempted to commit, acts of academic or research misconduct. You are expected to know what constitutes an academic offense, to avoid committing such offenses, and to take responsibility for your academic actions. For information on categories of offenses and types of penalty, please consult the relevant section of the Undergraduate Academic Calendar. If you need clarification of aspects of University policy on Academic and Research Misconduct, please consult your instructor.

Accessible Learning Statement

Students with disabilities or special needs are advised to contact Laurier's Special Needs Office for information regarding its services and resources. Students are encouraged to review the Calendar for information regarding all services available on campus.

FREQUENTLY ASKED QUESTIONS

1. *Can I ask whether a solution to a particular assignment question is "OK"?*

The simple answer is **NO**. You are, of course, free to ask any clarifying question or even whether a certain procedure is correct or not but I will not review your solution or program before hand. Otherwise there would be no point to having assignments. You are graduate students and part of your task is problem solving on your own. By all means, get together in groups to tackle problems.

2. *Are the practice questions and past exams on the course web page meant to prepare students for the final exam?*

YES. By the time you reach the end of the course you should rely on past exams, assignments, and practice questions to prepare for the exam. These materials are an accurate reflection of the length and level of difficulty you can expect on the final exam.

3. *Are the hours listed the only available office hours?*

I looked at your class schedules before choosing office hours. For simple or straightforward questions there is also e-mail and, if absolutely necessary, other times can also be arranged.

4. *Will programming be required to answer assignment questions?*

YES. Not every question on the assignment can be answered by pointing and clicking your way through Eviews. You will have to learn how to write simple programs on your own and I will provide a basic introduction during the first lecture as well as through in class demonstrations.

5. *When is the final exam?*

The exam is on October 24th, 2008 from 10:00am-12:00 noon.

6. *How similar is this year's course relative to last year's?*

There are always some changes to a course each year though the topics covered are the same as last year's.

7. *My econometrics background is weak. What should I do?*

Depending on how weak your background is you may have received some advance notice of this with a suggestion that you "bone up" on econometrics. In addition, the first couple of lectures are spent reviewing some undergraduate material, in part to help those who need to get up to speed, and the first assignment, while far from being comprehensive, is also meant

to ensure that no one is left behind. However, it is your responsibility to be prepared for the course and to put in the extra time to be ready to digest more advanced material.

8. There seems to be a lot of work for the assignments. Why?

The only way to learn how to do econometrics is to work with data and write programs, and both activities can be quite time consuming. The amount of work demanded by this course is perhaps larger than in other courses. However, the techniques and material covered will make it *much* easier for you to prepare empirical papers for other courses, and especially for your "Economics 681 Paper". So you can think of the work in this course as, hopefully, creating "positive" externalities for the work you'll be doing for other courses.

TEXTBOOKS and OTHER DETAILS

LECTURES WILL BE BASED ON EITHER THE BERNDT TEXTBOOK AND THEN ON NOTES THAT WILL BE MADE AVAILABLE ON THE COURSE WEBSITE. HOWEVER, THE MATERIAL IS ALSO COVERED IN THE ENDERS TEXT AND, SINCE THE NOTES ARE A WORK IN PROGRESS, I STRONGLY RECOMMEND THAT YOU OBTAIN A COPY FOR FUTURE REFENCE.

The Enders and Berndt texts are also available in the library.

E. Berndt, **The Practice of Econometrics** (Reading, Mass: Addison-Wesley, 1991). It is in the library. Having lost an earlier copy of the text I will NOT be lending out the text under **ANY** circumstances. I suggest that, if someone checks out the text from the library, the book be passed around your fellow students. The call number is HB139 .W525

W. Enders, **Applied Econometric Time Series, Second Edition** (New York: John Wiley and Sons, 2004). For some reason WLU has not ordered a copy of the Second Edition. There is a copy available from UW. The call number is HB139 .E55 2004. This is both a useful and an excellent reference for future work and the source of questions for assignments 2 through 4.

Course Grading

There is no mid-term for the course. One of the assignments is due after the lectures end. See the schedule of due dates below.

Assignments (4 @ 15% each)	60%
Final exam (October 24th 2008, room TBA)	40%
Total	100%

Deadlines

Note: *NO* exceptions will be made unless the cause is a documented illness. In the case of illness, the weight of the assignment will be added to the weight of the final exam. **THERE IS A PENALTY OF 5 POINTS PER DAY FOR LATE SUBMISSION OF ASSIGNMENTS (WEEKENDS COUNT). ALL ASSIGNMENTS ARE DUE NO LATER THAN 6PM ON THE DATES SHOWN BELOW.**

Assignment 1	September 23 TUESDAY
Assignment 2	October 3 FRIDAY
Assignment 3	October 14 TUESDAY
Assignment 4	October 21 TUESSDAY

Date	*Week No.*	*Topic or Reference* *(Schedule is approximate; adjustments will be made as necessary)*
Wednesday Sept. 10 Thursday Sept. 11	**1**	**Berndt chapter 2, 4, and 10**
Wednesday Sept. 17 Thursday Sept. 18	**2**	**Using Econometrics, Chapter 6** **(ALT: Enders chapter 2)**
Wednesday Sept. 24 Thursday Sept. 30 LAB # 1: Friday, Sept. 19	**3**	**Using Econometrics, Chapter 8** **(ALT: Enders chapter 3)** **Using Econometrics, Chapter 9** **(ALT: Enders chapter 4)**
Wednesday Oct. 1 Thursday Oct. 2 LAB #2: Friday, Oct. 3	**4**	**Using Econometrics, Chapter 9** **(ALT: Enders, chapter 4)** **Using Econometrics, Chapter 10** **(ALT: Enders chapter 5)**
Wednesday Oct. 8 Thursday Oct. 9	**5**	**Using Econometrics, Chapter 10** **(ALT: Enders chapter 5)** **Using Econometrics, Chapter 11** **(ALT: Enders, chapter 6)**
Wednesday Oct. 15 **Note date & time change:** **FRIDAY Oct. 17 (9-12)**	**6**	**Using Econometrics, Chapter 11** **(ALT: Enders, chapter 6)** **Using Econometrics, Chapter 11** **(ALT: Enders chapter 7)**

ASSIGNMENTS

***Getting started**. I would suggest that a good way to familiarize yourself with some of the basic properties of Eviews is to go to the Federal Reserve Bank of St. Louis' website (*research.stlouisfed.org/publications/review/99/03/9903ps.dat*) and download my paper in the March/April issue. See if you can replicate the results in Tables 1 through 3 of the paper. No marks, just the chance to see if you can embarrass your prof!. This data set will be used to introduce some of the features of Eviews 5.1 during lab sessions.*

Important Instructions re: Assignments

All answers should be as concise as possible. This means that a minimum of computer output should be included showing how the work was done. Where possible, describe in words how a particular answer was obtained and use the *Eviews* feature which allows you to send essential Tables and graphs to word processing applications. All assignments should be sent via e-mail with files containing all the detailed work. The e-mail message should clearly indicate what information is being sent **and proper file names should be given** (to be discussed in class). Failure to follow these instructions will lead to a loss of marks determined by how much "useless" output is handed in and how much extra work on my part is entailed!

Numbers in brackets indicate points for each question. Total for each assignment is 100.

All Data are available from the course website

Assignment # 1: Review & Basics (each exercise is worth 15 points, for a total of 90)
Berndt, chapter 2, Exercises 6, 8, 10 (omit Hildreth-Lu and Cochrane-Orcutt tests in part (b))
Berndt, chapter 4, Exercises 3 (omit part (c)), 6
Berndt, chapter 10, Exercise 2

All data are available from a link listed on the course website. A copy of the questions will be distributed in class.

Assignment # 2: Enders chapters 2, 3 (each question is worth 50 points for a total of 100)
Chapter 2, question 11
Chapter 3, question 9

Assignment #3: Enders chapters 4 and 5 (the first question is worth 20 points, the remaining 2 questions are each worth 40 points, for a total of 100)
Chapter 4, question 8
Chapter 5, questions 7 and 8

Assignment # 4: Enders, chapters 5 and 6 (each question is worth 50 points for a total of 100)
Chapter 6, question 8.
Chapter 7, exercise 6 NOTE : A PROGRAM MUST BE WRITTEN TO OBTAIN FULL MARKS. NO PROGRAM NO MARKS.