Economics 122B
Applied Econometrics II
Winter 2010
Course Code: 62280
Course Meetings: MWF 10:00-10:50
Course Web Site: https://eee.uci.edu/10w/62280
Class Room: ELH 100
Last updated: 1/8/2010

Instructor: Professor Marianne Bitler
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Office Hours: Monday 3:30–4:30 pm and Thursday 11 am–12 pm

Teaching Assistants:

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Course Objectives:
This course will extend your knowledge of econometrics beyond the linear models you used in Economics 122A. Econometrics is a tool which allows one to use data and statistical techniques to answer real-world questions and test predictions of economic theory. This course is the second in a two-course sequence on basic applied econometrics. It focuses on applications and interpreting the findings of econometric studies. If you are interested in a more theoretical/mathematical treatment of the topic, you should take the 123 sequence.

The goal of this class is for you to be able to interpret the results of the linear regression model you learned about in 122a, as well as to learn additional topics such as use of panel data, nonlinear regression functions, limited dependent variable models, instrumental variables models, and introductory time series. You should also be able to use these various models to analyze data, and critically assess studies using these models. An important part of the class will be use of the EVIEWS statistical package to analyze data. Econometrics is used in business, government, and academia for purposes such as studying the effects of

government policies, using historical data to forecast future values of variables such as the stock market, analyzing markets, and testing the predictions of economic theory. Knowledge of econometrics is valuable for many types of jobs. Knowing a software package such as EVIEWS is also valuable.

We will cover the following topics: nonlinear regression functions, assessing multiple regression results critically, regression with panel data, regression with a binary (0–1) dependent variable, instrumental variables regression, introductory time series, and if time permits, experiments and quasi-experiments.

In addition to Economics 122A (which reviewed probability and statistics and covered linear regression), the class prerequisites include probability and statistics (e.g., Economics 15A and 15B), and calculus. The textbook reviews some basic probability and statistics as well as linear regression. The first class or so will also review briefly linear regression.

Required Textbook: *Introduction to Econometrics*—**2nd Edition, by Stock and Watson**
The first edition of this text is readily available on Amazon.com and other used book sites. You are responsible for material in the second edition (in particular, material and homework questions). You may come by office hours to examine a copy of the second edition.

We will cover the material in Chapters 8–12 and 14 of Stock and Watson (and 13 if time permits). There is a website with companion material to the text under "Student Resources" at
http://wps.aw.com/aw_stockwatsn_economtrcs_1/4/1138/291480.cw/index.html.

Required IClicker
This course will use the IClicker response system to make the course more interactive and interesting. This means you will need to buy an IClicker at the bookstore and bring it to class. You will also need to register your IClicker at the IClicker website at
http://www.iclicker.com/registration/. Be careful to enter your student ID and name exactly as they appear on your UCI ID card. Note that using someone else's IClicker, or letting them use yours is cheating. I will take attendance with the IClicker by asking questions about the material in class. You will receive some credit for clicking at all, and some credit for getting the answers right. I will drop 2 classes attendance from the attendance grade, so you can up to 2 events such as forgetting your IClicker, etc. without affecting your grade.

Required software package: **EVIEWS**
EVIEWS is available in the Social Science Computer labs and is also available at the UCI Computer store at the bookstore at a large discount.

Empirical exercises **must** be completed using EVIEWS. If you took Economics 122A, 15A, or 15B, you are already familiar with EVIEWS. Here are some links to help you use it:

Guide to using EVIEWS: http://faculty.washington.edu/ezivot/eviews.htm
EVIEWS website: http://www.eviews.com

Optional other textbooks:
There are a number of other books on this topic. Two I recommend are *Introductory Econometrics* by Wooldridge or *Essentials of Econometrics* by Gujarati.

Grading Policy:

Your grade will be based on the best 4 of 5 problem sets (total of 20 percent), attendance and participation in class (5 percent), attendance and participation in the laboratory sections (5 percent), two midterms (20 percent each), and a final exam (30 percent). The final will be cumulative, but more heavily weighted toward the second half of the class. Evidence of improvement over the semester **may** help your grade. To get credit for an exam, you must wait until a TA or I check your name off the official class list. You **must** bring a valid UCI picture ID to each exam and to each lecture (there will likely be spot checks to be sure that students are only using the IClickers assigned to them).

The grades will be decided based on both the distribution of scores in the class and my assessment of how well the class understands the material.

I will assign reading (either in the textbook or of other material) before some classes, and may also assign extra credit quizzes which can be easily completed if you do the assigned reading. I also like to do example problems in class myself and have students do them. Students who come up to solve problems on the board will get extra credit.

Health Policy

Please do not come to lectures, sections, or exams when you are sick with anything contagious; particularly if you have a fever, persistent cough, or other flu symptoms! Exposing classmates and instructors to infectious diseases harms them and helps spread epidemics. Any student clearly violating this policy will lose all lecture participation points for this course. Students who cannot attend lectures or sections should contact the instructor by email within 48 hours to avoid losing participation credit for the missed lectures or sections. Public Health authorities strongly recommend that you should get flu shots (both seasonal and H1N1) as soon as they are available.

Exams:

There will be two **in-class** midterms on **Friday January 29** and **Friday February 26**. The final will be during the University's assigned finals period on **Monday March 15, from 10:30 am to 12:30 pm**. The final will be cumulative, but with more emphasis on the material in the second half of the course. If you know you have a conflict with the final exam (or midterms), you should not sign up for this class.

Exam Policy:

There will be no rescheduling of any exams. If you are unable to attend the in-class midterms or final exam, you must provide a legitimate excuse, such as a note from your doctor. Any doctor's note or other legitimate excuse must include a privacy waiver form allowing the School of Social Sciences to call the doctor's office to verify the authenticity of the note. There will be no makeup exams. If you have a valid excuse for missing the midterms, all of the exam part of your grade will be determined by the final exam and other midterm.

Required Discussion Sections:

You **must** register in a laboratory section for the course. The laboratory sections will be

held in the computer labs where you will use EVIEWS. The TAs will also provide help with the material in class, problem sets, and EVIEWS.

Section schedules and locations

Code	Section	TA	Time	Place
62281	A1	Pesic	T 4–4:50pm	SST 155
62282	A2	Lee	M 7–7:50pm	SST 155
62283	A3	Pesic	M 11–11:50am	SST 155
62284	A4	Salas	Th 5–5:50pm	SST 155
62285	A5	Salas	Th 6–6:50pm	SST 155
62286	A6	Lee	F 5–5:50pm	SST 155

Homework:
There will be 5 problem sets, but I will only count the best 4 out of five problem sets towards your grade. They will be due by the end of class on the date they are due in the classroom. Solutions will be posted right afterwards; thus late homework will receive **no credit** (but remember that you can drop the lowest homework score). The problem sets will come from the text and elsewhere. You may work together on the problem sets in groups up to size 4, but you will have a difficult time on the exams if you do not understand the homework material/cannot do the problems yourself. Everyone must turn in their own write ups of the problem sets, and must note who they worked with on their problem set. Problem sets will not be accepted by email.

Due dates for problem sets are as follows:

1. Problem set 1: Wednesday January 13 at the end of class
2. Problem set 2: Wednesday January 27 at the end of class
3. Problem set 3: Wednesday February 10 at the end of class
4. Problem set 4: Wednesday February 24 at the end of class
5. Problem set 5: Wednesday March 10 at the end of class

Attendance and Class Participation:
I expect you to attend class, and you will be responsible for material covered in class that is not available in the text or elsewhere. Please ask questions if there are things you do not understand. Please get notes from someone else if you miss class. I may or may not post lecture notes. I will post examples I do in class that are not in the textbook.

Please turn off your cell phones or put them on vibrate and be courteous to me and your fellow students in your use of other electronic devices.

Grading Questions and Grade Change Requests:
If you think that your exam has been graded incorrectly, you must write up why you think so, and come to my office to give this to me and discuss the issue within 1 calendar week of getting the exam back. Note that your entire exam is open to regrading, so your grade

could go down as well as go up. No regrade requests will be considered after that point.

If you think that your homework has been graded incorrectly, you must bring it to the TA who graded it within one calendar week of getting it back with a written explanation. No regrade requests will be considered after that point.

Academic Honesty:
All students should be familiar with the University's policy on academic honesty, http://www.editor.uci.edu/catalogue/appx/appx.2.htm.

If the TAs or I discover any evidence of cheating, dishonest conduct, plagiarizing, or inappropriate collusion on exams or homeworks, the students will be given Fs, and otherwise sanctioned to the full extent possible. These terms are explicitly defined at the URL above. I take cheating very seriously.

Note that cheating includes use of cell phones, PDAs, portable music devices, any other unauthorized book, papers, notes, or device during the exams. Leaving the exam room before turning in your exam is cheating. Bringing in more than the allowed reference information (extra formula sheet) is cheating. Trying to pass someone else's work off as your own is cheating (this includes copying homework solutions off the Internet). Using someone else's IClicker, and allowing someone else to use your IClicker are both cheating.

Drop Policy:
The economics department policy is that students may only drop classes during the **first two weeks of class** if the class has a waiting list. The first homework assignment is due on that Wednesday, so hopefully you will have a sense by then of what the class will be like. **Note that all adds/drops must be done electronically. According to department policy I cannot sign drop and add cards.**

Course evaluations:
Course evaluations are an opportunity for you to tell me how to make the class better. Please do them. They will be launched during weeks 9–10, and be available from Sunday February 28 through Sunday March 14.

Schedule:

- Review of linear model
- Nonlinear regression functions (Chapter 8)
- How to assess results of studies using regression (Chapter 9)
- Regression with panel data (Chapter 10)
- Regression with a binary dependent variable (Chapter 11)
- IV regression (Chapter 12)

- Introductory time series (Chapter 14)
- If time permits: Experiments and quasi-experiments (Chapter 13)