

Economics 122B
Applied Econometrics II
Winter 2009
Course Code: 62320
Course Meetings: TR 3:30-4:50
Course Web Site: <https://eee.uci.edu/09w/62320>
Class Room: DBH 1600
Last updated: 1/9/2009

Instructor: Professor Marianne Bitler

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Office Hours: Wednesday 3:30–5 pm and Thursday 1:30–2:30 pm

Teaching Assistants:

Mahima Badsra

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Kathleen Wong

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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) de-

pendent 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 Clicker at the Clicker 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.

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 3 of 4 problem sets (total of 20 percent), attendance and participation in class (5 percent), attendance and participation in the laboratory sections (5 percent), one in-class midterm (30 percent), a final exam (40 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. 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.

Exams:

There will be one **in-class** midterm on **Thursday February 5**. The final will be during the University's assigned finals period on **Tuesday March 17, from 4 pm to 6 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, you should not sign up for this class.

Exam Policy:

There will be no rescheduling of exams. If you are unable to attend the in-class midterm or final exam, you must provide a legitimate excuse, such as a note from your doctor. Any doctor's note 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 midterm, all of the exam part of your grade will be determined by the final exam.

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.

	Code	Section	TA	Time	Place
<u>Section schedules and locations</u>	62321	A1	Badsra	M 4–4:50pm	SST 630
	62322	A2	Badsra	M 7–7:50pm	SST 155
	62323	A3	Wong	M 11–11:50am	SST 155
	62324	A4	Wong	M 10–10:50am	SST 155
	62325	A5	Wong	Tu 9–9:50am	SST 630

Homework:

There will be 4 problem sets, but I will only count the best 3 out of four problem sets towards your grade. They will be due by the end of class on the date they are due in the classroom. 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. Everyone must turn in their own write ups of the problem sets, and must note who they worked with on their problem set.

Due dates for problem sets are as follows:

1. Problem set 1: Thursday January 15 at the end of class
2. Problem set 2: Tuesday February 3 at the end of class
3. Problem set 3: Tuesday February 24 at the end of class

4. Problem set 4: Thursday March 12 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:

If you think that your exam has been graded incorrectly, you must write up why you think so, and give this to me 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.

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.

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, the students will be given Fs, and otherwise sanctioned to the full extent possible. These terms are explicitly defined at the URL above.

Note that cheating includes use of cell phones, PDAs, portable music devices, any other unauthorized book, papers, or device during the exams. Leaving the exam room before turning in your exam is cheating. Trying to pass someone else's work off as your own is cheating (this includes copying it off the Internet).

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 Thursday, so hopefully you will have a sense by then of what the class will be like.

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)