

Economics 317
Econometrics

Dr. David Martin
Fall 2010

Meetings: 2:30-3:20 MWF in Chambers 2164
Office Hours: M 11-12, T 2:00-3:30, W 8:30-9:30, Th 11-12, F 11-12
and by appointment (please feel free to use *Outlook Calendar* to set one up).
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The course is divided into four units: review and extensions of *Basic Econometrics*, Endogeneity, Limited Dependent Variables, and Time Series Macroeconomics. One focus of this course is to be a learning-by-doing course, with our discussions of your (successful and unsuccessful) analyses being an important cog to your learning. A second focus of this course is to give you experience in reading and thinking about peer-reviewed applied econometric literature.

Prerequisites: Economics 205 (Basic Econometrics) and Mathematics 135 (Calculus II). You will use *SAS* extensively, and you will be able to load it onto your personal computer at no cost to you.

Readings:

There is no new textbook for this course, although I assume that you still have your textbook from *Basic Econometrics*. I will distribute other materials to you in several ways. First, I will distribute materials that I write as well as some datasets and *SAS* programs through a network folder, which I describe below. Second, I will distribute articles and some datasets through shared *RefWorks* folders for each unit (the materials will be available from each reference either through a stable URL or as an attachment).

Grading:

Concluding Assignments are due at the beginning of class on the assigned dates and will be completed individually and pledged.

Concluding Assignment for Unit 1	20% of the course grade
Concluding Assignment for Unit 2	10% of the course grade
Concluding Assignment for Unit 3	15% of the course grade
Concluding Assignment for Unit 4	15% of the course grade

Daily Homework Assignments are due on the assigned dates but may be completed in groups. You will record your own grades on a 10-point scale per problem, and only the assignment of that grade will be pledged. You must stay current in your recording of your daily homework grades, as every Wednesday I will “fix” the previous week’s grades so they can’t be changed.

Daily homework assignments	40% of the course grade
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Network File Space:

- *P:\Economics\Eco 317 (Econometrics)\Completed Assignments*: You will turn your completed SAS program for the Concluding Assignments into this folder's subfolders so I can run them (you won't be able to work in this folder). You are honor-bound to access only your materials.
- *P:\Economics\Eco 317 (Econometrics)\Fall 2010 Unit # Readings and Materials*: I will place reading materials that I write, some data sets, some SAS programs, and other materials in here for your use.
 - I will put material for you to read using the file name convention: *Eco 317 Day##a title.pdf*.
 - I will put the homework answer keys in this folder, generally using the file name convention: *Eco 317 Day ##b Homework Key.pdf*.
- *P:\Economics\Eco 317 (Econometrics)\z Eco 205 Labs*: For those of you who have not learned SAS, I have placed the Eco 205 lab materials here for you to play around with and to explore SAS. Each file name will tell you the topic of the lab.

The Honor Code is a critical component of life at Davidson. Let's keep it that way!

Tentative Timetable

Unit 1: Review and Extensions of *Basic Econometrics*

1. M Aug 23: Introduction and Review
2. W Aug 25: Estimation Day 1
3. F Aug 27: Estimation Day 2

4. M Aug 30: Estimation Day 3
5. W Sep 1: Hypothesis Testing 1
6. F Sep 3: Hypothesis Testing 2

7. M Sep 6: Hypothesis Testing 3
8. W Sep 8: Data Issues
9. F Sep 10: Autocorrelation 1

10. M Sep 13: Autocorrelation 2
11. W Sep 15: Heteroscedasticity 1
12. F Sep 17: Heteroscedasticity 2

13. M Sep 20: Time Series Cross Section 1
14. W Sep 22: Time Series Cross Section 2
15. F Sep 24: Buffer Day to discuss daily homework assignment

- 16. M Sep 27: Concluding Assignment for Unit 1 due**

Unit 2: Endogeneity

17. W Sep 29: Introduction to Endogeneity
18. F Oct 1: Two-Stage Least Squares

19. M Oct 4: Three-Stage Least Squares
20. W Oct 6: Instrumental Variables
21. F Oct 8: Vector Autoregression Models 1

- M Oct 11: Fall Break
22. W Oct 13: Vector Autoregression Models 2
23. F Oct 15: Buffer Day to discuss daily homework assignment
- 24. M Oct 18: Concluding Assignment for Unit 2 due**

Unit 3: Limited Dependent Variables

25. W Oct 20: Linear Probability Model and Logit Models 1
26. F Oct 22: Logit Models 2

- 27. M Oct 25: Random Utility Models 1
- 28. W Oct 27: Random Utility Models 2
- 29. F Oct 29: Random Utility Models 3

- 30. M Nov 1: Random Utility Models 4
- 31. W Nov 3: Random Utility Models 5
- 32. F Nov 5: Selection Models 1

- 33. M Nov 8: Selection Models 2
- 34. W Nov 10: Buffer Day to discuss daily homework assignment
- 35. F Nov 12: Concluding Assignment for Unit 3 due**

Unit 4: Time Series Macroeconomics

- 36. M Nov 15: Unit Roots
- 37. W Nov 17: Cointegration 1
- 38. F Nov 19: Cointegration 2

- 39. M Nov 22: Trends and Breaks 1
- W Nov 24: Thanksgiving Break
- F Nov 26: Thanksgiving Break

- 40. M Nov 29: Trends and Breaks 2
- 41. W Dec 1: Trends and Breaks 3
- 42. F Dec 3: Trends and Breaks 4

- 43. M Dec 6: Trends and Breaks 5
- 44. W Dec 8: Buffer Day to discuss daily homework assignment
- Th Dec 9: Reading Day
- 45. F Dec 10: In lieu of final exam – Concluding Assignment for Unit 4 due**

How do I fit in? Forecasting 1
 Forecasting 2