BPHD 8120: ECONOMETRICS I
Syllabus for Fall 2014
9:30 a.m. – 10:45 a.m. MW
Friday 207

Instructor
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Office Hours
2:30 p.m. – 4:00 p.m. MW
If the hours established are not convenient, feel free to make an appointment with me for another time or to stop by at another time when I am in the office.

Course Objectives
The objectives of this course are for students to master basic econometric concepts and to apply these concepts to research questions in Economics and Finance.

Means of Student Evaluation
Course grades will be determined by student performance on three in-class tests and several problem sets. These components will have the following weights in the calculation of students’ final grades:

- Test #1 25%
- Test #2 25%
- Test #3 25%
- Problem Sets 25%

Letter grades for the course will be based on the following scale:

- A 90% and above
- B 80%-89.99%
- C 70%-79.99%
- U below 70%

Test Dates
The first test will be on October 1; the second, on November 12; and the third, in the final exam slot for the course (8:00 a.m. – 10:30 a.m. on December 10).

Academic Integrity
Students are required to abide by the UNC Charlotte Code of Student Academic Integrity. Violations of the Code will result in disciplinary action as provided in the Code. The Code is available from the Dean of Students Office or online at http://legal.uncc.edu/policies/up-407.

Disability Accommodations
Students in this course seeking accommodations to disabilities must first consult with the Office of Disability Services and follow the instructions of that office for obtaining accommodations.
**Other**
The standards and requirements set forth in this syllabus may be modified at any time by the course instructor. Notice of such changes will be by announcement in class and by email.

The last day to withdraw from courses with grades of W is October 20.

There will be no class meeting on the following dates: September 1 (Labor Day), October 6 (Fall Break), and November 26 (Thanksgiving Break).

On any given class day, if I am more than 15 minutes late for class and you have received no notification from me to the contrary, you may assume that class is canceled.

The Belk College of Business strives to create an inclusive academic climate in which the dignity of all individuals is respected and maintained. Therefore, we celebrate diversity that includes but is not limited to ability/disability, age, culture, ethnicity, gender, language, race, religion, sexual orientation, and socio-economic status.

**Textbooks and Other Resources**
There are three textbooks that are required for this course:


There are several other good introductory or specialized econometrics textbooks that you may find useful:


On the course outline, I indicate the appropriate readings for each topic. On occasion, I may assign additional readings that are not currently listed on the outline.

**Software**
I will support STATA for the econometric analyses that you will be doing in this course, but you are welcome to use other software. STATA is available in the public student computer labs (Friday 216 and Friday 338). You may purchase STATA at a reduced rate through the STATA website ([http://stata.com/order/new/edu/gradplans/gp-direct.html](http://stata.com/order/new/edu/gradplans/gp-direct.html)). The STATA/IC version is sufficient for problem sets you will be assigned in this course and in BPHD 8130 (Econometrics II). If you expect to be working with large datasets in your research, then you may want to consider the STATA/SE version.

A website maintained at UCLA ([http://www.ats.ucla.edu/stat/Stata/](http://www.ats.ucla.edu/stat/Stata/)) has a number of resources that are quite useful for working with STATA. A useful STATA tutorial and the STATA programs and data used in Stock and Watson (2011) are available at [http://wps.aw.com/aw_stock_ie_3/](http://wps.aw.com/aw_stock_ie_3/).

**Outline of Topics and Reading Assignments**
I assume that you have a working knowledge of calculus, matrix algebra, and statistics, so we will not review these topics in class. Appendices A and B of Verbeek (2012), Appendices A, B, C, and D of Wooldridge (2013), and Chapters 2 and 3 of Stock and Watson (2011) cover the material that we need.

I. The Two-Variable Regression Model
   - Verbeek (2012), Chapter 1
   - Wooldridge (2013), Chapters 1 and 2
   - Stock and Watson (2011), Chapters 1 and 4

II. The Multiple Regression Model
   - Verbeek (2012), Chapter 2
   - Wooldridge (2013), Chapter 3, pp. 68-88 and pp. 93-104
   - Wooldridge (2013), Chapters 4 and 5
   - Stock and Watson (2011), Chapter 6

III. Specification Analysis and Model Selection
   - Verbeek (2012), Chapter 3, pp. 58-69
   - Wooldridge (2013), Chapter 3, pp. 88-92
   - Wooldridge (2013), Chapter 9, pp. 307-308

IV. Functional Form and Structural Change
   - Verbeek (2012), Chapter 3, pp. 70-90
   - Wooldridge (2013), Chapters 6 and 7
   - Wooldridge (2013), Chapter 9, pp. 303-307
   - Stock and Watson (2011), Chapter 8
V. Heteroscedasticity
   Verbeek (2012), Chapter 4, pp. 94-111
   Wooldridge (2013), Chapter 8
   Stock and Watson (2011), Chapters 5 and 7

VI. Autocorrelation
   Verbeek (2012), Chapter 4, pp. 112-134
   Wooldridge (2013), Chapters 10 and 12
   Stock and Watson (2011), Chapter 16, pp. 659-663

VII. Introduction to Time Series Modeling and Forecasting
   Verbeek (2012), Chapter 8
   Wooldridge (2013), Chapters 11 and 18
   Stock and Watson (2011), Chapter 14