

**Economics 570**  
**Introduction to Econometrics**  
**Course Syllabus for Spring 2015**

Course Time: Tuesdays and Thursdays, 12h30pm to 1h45pm.  
Course Room: Gardner 106

**Instructor**

Valentin Verdier  
Office: Gardner 208B  
Office Hour: Tuesday 4-5pm and by appointment  
Course Website: Sakai  
E-mail: vverdier@email.unc.edu

**Textbook**

*Introductory Econometrics*, 4th or 5th edition, Jeffrey Wooldridge, Thomson SouthWestern 2009

**Course Objectives**

Econometrics is the name of the quantitative methods used to answer questions originated from economic theory using economic data that document the behavior of economic agents or the history of objects of interest to economists (GDP, stock prices,...). Econometrics has generated a huge amount of research over the last decades, hence it is not possible to overview the entire field in a semester. However, one of the goals of this course is to equip students with enough knowledge so that they can answer in a simple but informative way empirical questions they will face in academic or professional settings.

The other objective of this course is to lay the foundations for further training in econometrics, either at your future job or in more advanced courses.

Thus this course will try to balance theory and applications. Both of these are complementary and **require a lot of practice**. This is a technical course, and the key to success is to read the textbook to fully grasp the material and to practice as much as possible using the problem sets and the exercises at the end of the chapters.

## Course Requirements

There will be five or six problem sets. There will also be a midterm exam, a final exam and a short test after the mathematics and statistics review is over. All exams will be in-class and closed book.

Dates for the exams will be announced during lecture as they will depend on how much time is spent on the Math and Stats review. The test on the Math and Stats review will occur as soon as the review is over. The midterm will occur as soon as Part 1 of the syllabus is over.

The grades will be weighted as following:

25% Problem sets

10% Test on review

30% Midterm

35% Final

The final grade will be determined by the following table:

Final Grade	From	To
4	87.5%	100%
3.5	82.5%	87.49%
3	77.5%	82.49%
2.5	72.5%	77.49%
2	67.5%	72.49%
1.5	62.5%	67.49%
1	52.5%	62.49%

## Prerequisites

Econ 101 and 400

## Academic Integrity

This course will be consistent with university policies, see <https://studentconduct.unc.edu>.

## Additional notes

Please feel free to contact me with any question or concern you might have.

Students who require accommodation for a disability should contact me as soon as possible to set up arrangements.

## Course outline and Reading List

### **Introduction**

Chapter 1

### **Mathematics and Statistics review**

Appendices A, B and C

### **Part 1: Econometrics with cross-sectional data**

#### **Simple regression**

Chapter 2

#### **Multiple regression: Estimation**

Chapter 3

#### **Multiple regression: Inference**

Chapter 4

### **Part 2: Econometrics with panel data**

#### **Pooling cross sections across time**

13.1, 13.2

#### **Simple solutions to unobserved heterogeneity**

13.3, 13.4, 13.5

#### **Measuring positive externalities from Lojack**

Paper will be posted on Sakai

### **Part 3: Additional topics on multiple regression**

5.1, 5.2, 6.1, 6.2, 6.4, 7.1, 7.2, 7.3, 7.4, 7.6, 8.1, 8.2

### **Part 4: Econometrics with time series data (If time permits)**