

Economics 503
Econometrics
Spring 2018

Professor D. McMillen

Class Times: TR, 8:00 – 9:50 & 10:00 – 11:50, both in 317 DKH

Office Hours: 218 DKH, MW, 1:30 – 3:00 and by appointment.

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Overview:

The course provides a thorough presentation of Econometrics, which is the field of economics dealing with data analysis and statistical testing. The goal of the course is to develop an understanding of commonly used regression procedures through a combination of econometric theory and applied data analysis.

Required Text:

Wooldridge, Jeffrey M., *Introductory Econometrics: A Modern Approach*, South-Western, 6th ed. (2016). The book includes a web site that provides data sets that will be used for many of the course assignments.

Grading:

The grade will be based on two exams, weekly problem sets, and a research paper.

Exam 1 (30%) February 27.

Exam 2 (30%) April 12.

Paper (25%) May 3.

Homework (15%) Most of the homework assignments will be drawn from the text.

Research Paper:

The research paper can be drawn from any topic in applied economics. The outline of the paper should be as follows:

1. Introduction – discussion of the problem and why it is of interest
2. Literature review
3. Data and econometric model
4. Results
5. Conclusion

You are encouraged to work in groups (a maximum of 5 people) for the project. Data are readily available from www.census.gov. Some journals (such as *Journal of Business and Economic Statistics* and *Review of Economics and Statistics*) post data sets online.

Tentative Course Outline

Week	Dates	Topic	Textbook Chapters
1	January 16 & 18	Introduction to Linear Regression	1 & 2
2	January 23 & 25	Multiple Regression: Estimation	3
3	January 30 & February 1	Multiple Regression: Inference	4
4	February 6 & 8	Asymptotics	5
5	February 13 & 15	Multiple Regression: Further Issues	6
6	February 20 & 22	Dummy Variables	7
7	February 27	Exam. Answers covered on March 1.	
8	March 6 & 8	Heteroskedasticity, Measurement Error	8, 9
9	March 13 & 15	Time Series Data	10 & 12
<i>Spring Break, Week of March 19</i>			
10	March 27 & 29	Panel Data	13 & 14
11	April 3 & 5	IV Estimation, Simultaneous Equations	15, 16
12	April 10 & 12	April 10: Simultaneous Equations April 12: Exam	16
13	April 17 & 19	Paper Presentations	
14	April 24 & May 26	Paper Presentations	
15	May 1	Paper Presentations	