

AED ECON 7130: Applied Econometrics I
Spring 2018

Instructor: Abdoul Sam
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Class Time: Tuesday and Thursday 2:20 to 3:40 pm, (Room AA 246)
Lab Time: Monday 9:35 to 10:55 am (AA 005)
Office Hours: Wednesday 11:00 a.m. to 1:00 p.m

Course description: This is the first in a two-course sequence in applied econometrics. The purpose of this course is to provide a rigorous introduction to techniques and applications of econometric analysis in order to conduct sound empirical research. Lectures and labs will feature discussion of technical concepts and computer applications using real and simulated datasets.

Required Textbook:

William Greene, *Econometric Analysis 8th edition*, Pearson (2018)

Recommended Textbooks:

Jeffrey Wooldridge, *Econometric Analysis of Cross Section and Panel Data 2nd edition*, MIT Press (2010)

Colin Cameron and Pravin Trivedi, *Microeconometrics: Methods and Applications*, Cambridge University Press (2005)

Prerequisites: Students should review the material in appendices A through D of the Greene textbook (matrix algebra, probability and distribution theory, estimation and inference, large sample distribution theory) throughout the term. You should acquaint yourself with SAS which we will use in the lab. SAS is available in all computers of the graduate computer lab. You are, however, free to use the software of your choice to complete homework assignments.

Evaluation: There will be a number of homework assignments and a final exam.

Homework Submission Policy: You are expected to submit work assignments on time. There will be a reduction of 5% per day (baseline equals total points available for the assignment) for late submission up to 3 days. Submissions that are more than three days late will not be awarded points except in cases of documented emergency.

Grading:

Homework Assignments	60%
Final Exam	40%

Students with disabilities that have been certified by the Disability Services at the Office of Student Life will be appropriately accommodated, and should inform me as soon as possible of their needs.

Academic Misconduct: Plagiarism and other forms of cheating will not be tolerated. University rules provide severe penalties for academic misconduct, ranging from course failure to dismissal from the university. The instructor is required by the University to report all suspected cases of academic misconduct to the Committee on Academic Misconduct (University Rule 3335-5-487).

Topics to be covered (subject to change)

Topic	Reading Material
Introduction to OLS; Properties of OLS	Lecture notes and chapters 1-4
Statistical Inference	Lecture notes and chapters 4, 5
Maximum Likelihood Estimation and Inference	Lecture notes and chapter 14
Specification Issues and the Instrumental Variables Methods	Lecture notes and chapters 4-6, 8
Nonspherical Disturbances and Generalized Least Squares	Lecture notes and chapters 9, 20
Binary Dependent Variable Models	Lecture notes and chapter 17
Variable Selection Models in Data Rich Environments	Lecture notes
Sample Selection Methods	Lecture notes and chapter 19
Panel Data Models	Lecture notes and chapter 11