ECON 4950: Econometrics and Application
Department of Economics
Georgia State University
Fall 2016

Instructor: Nicholas A. Wright
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Class hours: Tue 7:15 PM - 9:45 PM
Location: Sparks Hall #300

Prerequisites: Principles of Microeconomics (ECON 2105), Principles of Macroeconomics (ECON 2106), and Introductory Probability and Statistics

Course Description/Overview:
This is an introductory course to Econometrics focused primarily on the classical linear regression model (CLRM). We will outline the main assumptions of the CLRM, critically examine consequences of their violation and discuss the available remedies. The course will introduce estimation approaches such as simple and multiple regression analysis, and cover topics such as hypothesis testing, heteroscedasticity, measurement error, and omitted variable bias. These techniques will be applied to real data for the purpose of policy analysis in the areas of labor markets, industrial organization, finance, development, and taxation.

Learning Objectives:
After talking this course, students should be able to:
1 Manipulate economic data sets.
2 Diagnose certain problems with linear models and know how to remedy them
3 Have a working knowledge of the classical linear regression model and its applicability.

Required Textbook: J. Wooldridge *Introductory Econometrics: A Modern Approach*, 5th edition.

Software: *Stata*. The ability to apply econometrics is a key skill for success in the job market and graduate school admission. For this reason, applications of econometric methods are fully integrated into the course structure and occur frequently in the regular class sessions. Students who can afford to purchase a copy of STATA are encouraged to do so, since this program will be used quite frequently during the semester. To order Stata, follow this link: http://www.stata.com/order/new/edu/gradplans

Homepage: The class website can be accessed through *icollege* (formerly Desire2Learn) at https://gastate.view.usg.edu/. All announcements, syllabus, home assignments, lecture notes, Stata data sets and other course material will be posted on this platform.

Assessment and Grading Policies:

Your final grade will be determined by a cumulative score allocated using the following assessments:

1. Final Exam 45%
2. Midterm Exam 20%
3. Five Problem sets 20%
4. Three in-class quizzes 10%
5. Attend/ Class Contrib. 5%
6. Term Paper Optional

There will be a midterm and a final exam. You will also be given five problem sets throughout the semester which can be completed in groups of two or individually. The quizzes will be randomly given in-class based on directed readings of the chapters in the required text. While problem sets can be completed in groups, the quizzes must be completed individually. Therefore, students who do not complete the readings will be at a disadvantage. I may also decide to give extra credit assignments throughout the semester to facilitate students' engagement in more real life application of the issues covered in this course.

Students' may opt to do a term paper worth 15% of their final grade and will be due Nov 23rd. For students' who decide to take up this option, the final exam will be reduced to 30% of their cumulative grade. The final exam grade will automatically replace the lowest of either the term paper or the mid-term exam. Therefore, the incentive is there for all students to complete the term paper with no negative consequence on their grade.

The final exam will be cumulative and comprehensive. Those taking the course on the pass/fail basis must make at least a 'D' to get an 'S'(satisfactory) grade. If you have an excused absence with my prior approval and miss any midterm exam, the weight of the missed exam will be placed on the comprehensive final. You must take the final exam to pass the course.

The **distribution of the grades** will be allocated as follows:

Course Grade	Evaluation
A+	97%+
A	93%-96%
A-	90%-92%
B+	87%-89%
B	84%-86%
B-	80%-83%
C+	77%-79%
C	74%-76%
C-	70%-73%
D	50%-69%
F	< 50%

Key Dates

Mid Term Exam:	Tues., Oct. 4th
Extra Credit:	Nov 9th & Nov 16th
Term Paper:	Nov 23rd
Final Exam:	Tues., Dec. 6th

Attendance Policy:
Class attendance is strongly recommended. Experience indicates that students who attend class regularly do significantly better than students who do not. Materials for exams and homework will come from both class lectures as well as the course textbook. Students who miss a class should consult with fellow classmates to determine what they missed.

Expectations*:* This course provides treatments of topics which may be, at times, quite complicated. Therefore, regular attendance and active participation will increase your understanding of course material; a part of the final grade is allocated to active participation. Please make sure to write the course **ID ECON 4950** on the front page; *especially any email communication with me must contain the* ***ECON 4950*** *course ID number in the subject line*. This allows me to filter your email to the appropriate course folder. There will be ***NO make-up examination***, if there is a conflict of final exam dates, please make alternative arrangement now. If something totally unforeseen comes up, contact me as soon as possible. ***NO electronics*** may be used (except Stata computer), and all electronics must be turned off, in the classroom during class and exam time. Use a small, non-graphing, basic function calculator that lacks the ability to store information for use during in-class exercises and exams. Use of graphing calculators, cell phones, etc. during the exams will not be permitted.

Academic Honesty: Nothing less than exemplary behavior with respect to academic honesty is expected, any deviance from such behavior will have serious consequences for your course grade. As such, any and all instances of suspected academic dishonesty will receive serious attention.

Code of Conduct: All students are responsible for knowing and adhering to GSU's Policy on Academic Honesty as published in Student Code of Conduct Handbook (See http://codeofconduct.gsu.edu/).

Course Evaluation: Your constructive assessment of this course plays an indispensable role in shaping education at Georgia State University. Upon completing the course, please take time to fill out the online course evaluation.

Disability: Students who wish to request accommodation for a disability may do so by registering with the Office of Disability Services. Students may only be accommodated upon issuance by the Office of Disability Services of a signed Accommodation Plan and are responsible for providing a copy of that plan to instructors of all classes in which accommodations are sought.

Withdrawal: Students who withdraw after the midpoint of each term will not be eligible for a "W" except in cases of Emergency Withdrawal.

a. Withdrawal Policy: http://advisement.gsu.edu/self-service/policies/withdrawal-policy/
b. Repeat to Replace Policy: http://advisement.gsu.edu/self-service/policies/repeat-to-replace-policy/
c. Grade Appeal and Change (including Incomplete Grades) Policy: http://registrar.gsu.edu/academic-records/grading/grade-appeals-and-changes/

Make-up Policy: There will be absolutely **no make-up** exams. **You must take the final exam to pass the course**. If you must miss an exam due to extenuating circumstances, let me know as soon as possible before the exam takes place so alternative arrangements can be made (such as an early exam). In order to make alternative arrangements I will need official documentation of the circumstance such as a doctor's note, police report, etc. Finally, if you are missing any exam due to a school sanctioned event (such as a sports competition), you need to let me know 2 weeks in advance so I can make alternative exam arrangements with you.

Respect: Georgia State University values diversity and is committed to fostering and maintaining an educational environment which appreciates individual differences in all areas of operation including classroom instruction and materials. To this end, any actions, practices, or processes by any faculty, staff person, or student that discriminates against or is prejudicial toward any person or group based on race, gender, age, religion, ethnicity, nationality, disability, sexual orientation, or socioeconomic status will not be tolerated.

Suggested Online *Stata* Resources

1. **UCLA Academic Technology Services:**
   This resource includes FAQs, learning modules, a reference guide, examples, etc.
   http://www.ats.ucla.edu/stat/stata/

2. **Carolina Population Center:**
   http://www.cpc.unc.edu/research/tools/data_analysis/statatutorial
   This resource includes tutorial, examples, reference commands, etc.

3. **Data and Statistical Services, Princeton University:**
   http://dss.princeton.edu/online_help/stats_packages/stata/
   This resource includes general information on using STATA.

4. **YouTube:**
   StataCorp LP: http://www.youtube.com/user/statacorp
   Quick Tour of interface: http://www.youtube.com/watch?v=L8iIj_8lhRc
   Quick Help: http://www.youtube.com/watch?v=UpXNMeTzmuI
   PDF Documentation: http://www.youtube.com/watch?v=KPHxC-HyrMk
   DO files: http://www.youtube.com/watch?v=lRkZhh3hatU
   Installing new commands: http://www.youtube.com/watch?v=3CJ-BTmuFws
   Descriptive statistics: http://www.youtube.com/watch?v=kKFbnEWwa2s
   Simple OLS: http://www.youtube.com/watch?v=HafqFSB9x70

Planned Schedule of Lectures	
Week	Lecture Plan
Week 1	Review of Probability Distribution and Sampling
Week 2	Review of Probability Distribution and Sampling
Week 3	Review of Probability Distribution and Sampling
Week 4	Chapter 1, Lab 1
Week 5	Chapter 2
Week 6	Chapter 2, Lab 2
Week 7	Chapter 3, **EXAM 1 (10/04/2016)**
Week 8	Chapter 3
Week 9	Chapter 3
Week 10	Chapter 3, Lab
Week 11	Chapter 4
Week 12	Chapter 4, Lab
Week 13	Chapter 6,7
Week 14	**THANKSGIVING BREAK (11/21–11/26)**
Week 15	Chapter 8-9
Week 16	**FINAL EXAM (12/6/2016)**

***The course syllabus provides a general plan for the course; deviations may be necessary.