ECON 7800 – Econometrics I
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Course Description:
This course focuses on regression analysis using cross-section data and covers a variety of applied problems, including non-spherical errors, endogenous regressors, qualitative data. The course will adopt an applied approach that would facilitate you to identify the strengths and limitations of the estimation methods so that you can apply them for your empirical research judiciously.

For the computer exercises you may use any statistical software that you are comfortable with. My personal favorite is STATA and I will use that to demonstrate the applications in the lab.

Course evaluation:
Assignments   (50% weight)
Exams   (50% weight)

Course grade criterion: A $\geq$ 95%, 95% > A- $\geq$ 90%, 90% > B+ $\geq$ 87%, 87% > B $\geq$ 83%, 83% > B- $\geq$ 80%, 80% > C+ $\geq$ 77%, 77% > C $\geq$ 73%, 73% > C- $\geq$ 70%, 70% > D+ $\geq$ 65%, 65% > C $\geq$ 60%, 60% > C- $\geq$ 50%, 50% > E

Late assignments lose points. Exams must be taken at the scheduled date. When a student has a legitimate reason (documented emergency) for missing an exam, the weight of the missed exam will be transferred to the rest of the exam(s). Absolutely no make-up exams are given. Incompletes are not generally given for non-medical reasons.

Americans with Disabilities Act (ADA) Statement
The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in the class, reasonable prior notice needs to be given to the Center for Disability Services, 162 Olpin Union Building, 581-5020 (V/TDD). CDS will work with you and the instructor to make arrangements for accommodations. All information in this course can be made available in alternative format with prior notification to the Center for Disability Services. (www.hr.utah.edu/oeo/ada/guide/faculty/)

Wellness Statement
Personal concerns such as stress, anxiety, relationship difficulties, depression, cross-cultural differences, etc., can interfere with a student's ability to succeed and thrive at the University of Utah. For helpful resources contact the Center for Student Wellness - www.wellness.utah.edu; 801-581-7776.

Suggested Textbooks:
Jeffrey Wooldridge, *Econometric Analysis of Cross Section and Panel Data*, MIT Press.
William H. Greene, *Econometric Analysis*, Prentice Hall, 6th Ed.
Fumio Hayashi, *Econometrics,* Princeton University Press.

Course Plan

Class	Topic	Chapter
1	Introduction to econometrics and linear regression model	G1, G2, G3
2	OLS estimation using matrix notation	G1-3, W4
3	Small sample properties of OLS	G4
4	Inference: tests of linear restrictions	G5, G6
5	Lab 1	
6	Large sample properties of OLS & hypothesis testing based on asymptotic properties	G4, G5, W4
7	Lab 2	
8	Model selection & Functional forms	G6, G7
9	Lab 3	
10	Model selection & Functional forms	G6, G7
11	Lab 4	
12	Review	
13	Midterm exam	
14	Multicollinearity	G4
15	Non-spherical disturbance	G8, W4, W6
16	Lab 5	
17	Instrumental variables	W4, W5, G12
18	Lab 6	
19	Instrumental variables	W4, W5, G12
20	Lab 7	
21	Qualitative dependent variable	W15, G23
22	Lab 8	
23	Multi-category dependent variable	W15, G23
24	Lab 9	
25	Censoring and Truncation	G15, W14
26	Lab 10	
27	Review	
28	Final take home exam	

Abbreviations used - G: Greene & W: Wooldridge