

## ECON 7800 – Econometrics I

M,W 3:30pm - 5:00pm

OSH 360 for lectures, OSH 277 (on selected Wednesdays) for lab sessions

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Office: OSH 339B

Office Hours: By Appointment

### 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 components and their weights*

1. *Assignments* (25% weight)
2. *Exams* (75% 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/](http://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](http://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, 6<sup>th</sup> Ed.

Fumio Hayashi, *Econometrics*, Princeton University Press.

### **Topics**

Introduction to econometrics and linear regression model

OLS estimation using matrix algebra

Hypothesis testing

Large sample properties of OLS

Functional forms & specification issues

Multicollinearity

Non-spherical disturbance

Endogeneity and instrumental variables

Qualitative dependent variable

Limited dependent variable