



Department of Economics Course Outline

		Term:	Spring 2008
Course:	Economics 495 Introduction to Econometrics I	Section:	20
Time:	TR 09:00-11:50	Place:	ST125
Instructor:	Jesse Matheson	E-mail:	jmatheso@ucalgary.ca
Office:	SS443	Office Hours:	TR 13:00-14:00 or appointment

Prerequisites:

Econ 301 (Micro), *Econ 303* (Macro), *Econ 395* (Statistics), *Math 249 or 251* (Calculus)

Textbook(s):

Required: Wooldridge, Jeffrey M., *Introductory Econometrics: A Modern Approach*, Thomson, South Western, 4th Ed.

Book(s) on Reserve:

- (1) James H. Stock and Mark W. Watson, *Introduction to Econometrics*, Addison Wesley, 2003.
- (2) Robert Pindyck and Daniel Rubinfeld, *Econometric Models and Economic Forecasts*, 1998, McGraw-Hill.
- (3) J. Scott Long, *Regression Models for Categorical and Limited Dependent Variables*, 1997, Sage.

Course Outline:

This course focuses on the theory and application of the multi-variate linear regression model, with emphasis given to the least-squares estimator (OLS). We will cover the fundamentals of regression models and model specification, estimation and inference. Students will be introduced to time series and panel data models.

As there is an applied component to this course, use and a basic understanding of STATA software is necessary for success. Students are required to use STATA software on assignments, and should expect to be tested on basic coding and output. Computers in the Tri-Faculty computer lab (SS018) are equipped with STATA.

Tentative schedule of topics (may be changed at instructor's discretion).

Class	Topic	Text Readings	Highlights
First Week: Review your Statistics 213 and/or Economics 395 notes.			
May 15	Stats review, Intro to Econometrics and the simple regression model	Chapters 1 & 2 Handout: <i>Random Variables & Sampling Distributions</i>	Chapter 1: Types of data; Causality and regression analysis. Chapter 2: Terminology; Conditional mean; Derivation and algebraic properties of the OLS estimator.
May 20	The simple regression model, Stata refresher	Chapter 2	The second half of this class will be in the Tri-Faculty computer lab, SS018.
May 22	Multi-regression Model: Estimation	Chapter 3	Interpretation and derivation of OLS parameters; Goodness of fit; Statistical properties of OLS. Exercise 1 due in class.
May 27	Multi-regression Model: Estimation	Chapter 3	Continuation of previous class.
May 29	Multi-regression Model: Inference	Chapter 4	Sampling distribution and testing; t-test (single linear restrictions); F-test (multiple linear restrictions) Exercise 2 due in class.
June 3	Multi-regression Model: Asymptotic & Other Issues	Chapter 5 & 6	Chapter 5: Large sample properties of OLS Chapter 6: Fun with functional form; Goodness of fit revisited.
June 5	Class Break		
June 10	Midterm Exam, Multi-regression Model: Dummy Variables	Chapter 7	One-hour midterm held from 9:00–10:00. Class will resume at 10:30. Exercise 3 due in class.
June 12	Heteroskedasticity and other data problems.	Chapter 8 & 9	Data problems in OLS estimation, and attempts to correct; Endogeneity.
June 17	Time Series	Chapter 10 & 11	An overview of time series data and OLS estimation. Exercise 4 due in class.
June 19	Time Series Models	Chapter 12	Serial Correlation and Heteroskedasticity: problems, tests and corrections.
June 24	Panel Data Models	Chapters 13 and 14	Exercise 5 due in class.
June 26	Instrumental Variables	Chapter 15	
Final examination scheduled by the Registrar's Office and held in a classroom.			

Grade Determination and Final Examination Details:

Five (5) Exercises @ 7% each	35%
Midterm Exam	20%
Final Exam	45%
	<u>100%</u>

Exercises may be worked on in groups, but must be handed in as individuals. Any submitted assignment which does not fully reflect the student's own work may be subject to disciplinary action. All assignments are due at the beginning of class on the specified date. Assignments handed in after class, on the specified date, will be docked 25%. **Assignments will not be accepted after the specified date.**

Exercises, midterms and final exams are marked on a letter basis, then converted to the university's grade point value. The course grade is then calculated using the weights indicated above. As a guide to determining standing, these letter grade equivalences will generally apply:

A+	95 – 100	B	73 – 76	C-	60 – 62
A	85 – 94	B-	70 – 72	D+	56 – 59
A-	80 – 84	C+	67 – 69	D	50 – 55
B+	77 – 79	C	63 – 66	F	0 – 49

If, for some reason, the distribution of grades determined using the aforementioned conversion chart appears to be abnormal the instructor reserves the right to change the grade conversion chart if the instructor, *at the instructor's discretion*, feels it is necessary to more fairly represent student achievement.

A passing grade on any particular component of the course is not required for a student to pass the course as a whole.

No deferred midterm will be given. In the case of a documented illness or family emergency, the extra weight will be shifted to the final exam. The instructor must be **notified in advance** if a student is unable to write the midterm. Documentation must be provided to the instructor as soon as possible.

Non-programmable calculators will be allowed during the writing of tests or final examinations.

There will be a Registrar scheduled final examination, lasting 2 hours and held in a classroom.

Tests and exams may involve multiple choice questions.

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Notes:

- Students seeking reappraisal of a piece of graded term work should discuss their work with the Instructor *within seven* days of the work being returned to the class.
- It is the student's responsibility to request academic accommodations. If you are a student with a documented disability who may require academic accommodation and have not registered with the Disability Resource Centre, please contact their office at 220-8237. Students who have not registered with the Disability Resource Centre are not eligible for formal academic accommodation. In the Department of Economics, we recommend that all students enrolled in the Spring/Summer session, should discuss their needs with the instructor of the course no later than seven (7) days after the start of this course.

Safewalk / Campus Security: 220-5333

JM/mi

2008-03-28