Department of Economics
Course Outline

		Term:	Fall 2006

Course:	Economics 395 [Use of Statistics in Economics]	**Section:**	L03
Time:	MWF 10:00 ? 10:50	**Place:**	ST139
Instructor:	Marian Miles		
Office:	SS 447	**Telephone:**	220-6550
Office Hours:	MW 09:00 ? 09:50	**E-Mail:**	mmiles@math.ucalgary.ca

Textbook(s):

Gerald Keller, *STATISTICS FOR MANAGEMENT AND ECONOMICS*, 7th edition, Thomson Brooks/Cole, + Thompson NOW Software Kit (sold together) **or** Thompson NOW Software Kit (sold by itself): This kit gives you access to an on-line version of the textbook. [**Required Text**]

Book(s) on Reserve:

Gerald Keller, *STATISTICS FOR MANAGEMENT AND ECONOMICS*, 7th edition, Thomson Brooks/Cole.

Blackboard:

This course will make use of blackboard ? students who are registered in the course can logon at
http://blackboard.ucalgary.ca/webapps/login

Course Outline:

Prerequisites; Econ 201, 203 and Stats 211 or 213.

Building on the fundamental mechanics of statistics and probability as presented in Stats 211 or 213, Econ 395 familiarizes students with the empirical application of statistical principles to problems of measurement in economics. The course focuses on the intuition and application of statistical reasoning, the gathering and manipulation of economic data, and the use of standard econometric software. The core of this course comprises Random Variables, Expectation, Probability Distributions, Hypothesis Testing and the Two-Variable Linear Regression Model.

Topics Covered

Random Variables:

The role of random variables as the fundamental building block of econometric models; the use of expectation theory including the conditional expectation operator as the main tool for investigating the characteristics of econometric relationships; the role of probability theory in expectations; sampling and sampling distributions; probability density and cumulative distribution functions.

Data Gathering and Manipulation:

Instruction on searching for and downloading economic variables from the main economic data sources in Canada; transforming and modifying data to be read into an econometric software package.

Single and Multi-Variate Probability Distributions:

Instruction on using and interpreting the Uni-variate and Multi-variate Normal distribution; extensions to the t, Chi-squared and F distributions with empirical applications.

Hypothesis Testing and Inference:

Single and joint hypothesis tests, Type I and Type II errors and p-values; power and size of test statistics; choosing the correct test statistic for the measurement problem.

The Least Square Regression Estimator:

The two-variable regression model; interpreting the variables, the coefficients and the error term; confidence intervals, goodness-of-fit and hypothesis testing.

Applications of Econometric Software:

Instruction on using a standard econometric software package; reading data, descriptive statistics, applying the least squares estimator, interpreting econometric results, carrying through with and the empirical interpretation of hypothesis testing and other standard econometric tests; graphical methods.

Students MUST attend one lab presentation each week. Three identical lab presentations will be offered each week in the Tri-Faculty Lab SS Rm. 018. The course will use software Excel and STATA.

Times: *Monday 13:00 ? 14:00 in Section 3, Tri-Faculty Lab* **(starts Sept. 18, 2006)**

Tuesday 12:30 ? 13:30 in Section 3, Tri-Faculty Lab **(starts Sept. 19, 2006)**
Wednesday 09:00 ? 10:00 in Section 3, Tri-Faculty Lab

(starts Sept. 20, 2006)

Grade Determination and Final Examination Details:

Assignments	8	30%	
Midterm	2	30%	Dates to be announced:
Final Examination	(2 Hours)	40%	As scheduled by the Registrar

The format and dates of these tests and assignments will be discussed during the first week of classes. Each assignment is due at the beginning of the lecture on the due date. Late assignments will not be accepted. You are welcome to work with a small group (2 or 3 students) on the assignments and a group assignment is to be handed in. All students in the group will receive the same mark for that assignment.

Tests and final exams are marked on a numerical (percentage) basis, and then converted to letter grades. 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+	97 ? 100	B+	81 ? 85	C+	66? 69	D+	53 ? 56
A	90 ? 96	B	75 ? 80	C	61 - 65	D	49 ? 52
A-	86 - 89	B-	70 - 74	C-	57 - 60	F	0 - 48

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.

Programmable calculators are NOT allowed during the writing of tests or final examinations. Non-programmable calculators WILL be allowed during the writing of tests or final examinations, but cell-phones are strictly forbidden during the writing of examinations.

The date of the in-class midterms will be announced **2 weeks in advance.** No deferred midterms will be given. In case of documented illness or family emergency, the extra weight will be shifted to the final examination. The Instructor should be *notified in advance* if a student will be unable to write a midterm. In any case, documentation must be provided as soon as

possible (within a day or so of the missed midterm).

There will be a Registrar scheduled **final examination**, lasting 2 hours. The FULL COURSE will be covered.

Tests and exams MAY involve multiple choice questions.

Students? Union Vice President Academic:
   Shannon O?Connor
   Phone: 220-3911
   E-Mail: suvpaca@ucalgary.ca

Students? Union Faculty Representative (Social Sciences)
   Teale Phelps-Bondaroff
   Phone: 220-3913 Office: MSC 251
   E-Mail: socialscirep@su.ucalgary.ca or clmcdona@ucalgary.ca

Society of Undergraduates in Economics (S.U.E.)
 www.fp.ucalgary.ca/econ

Notes:

- Students seeking reappraisal of a piece of graded term work (term paper, essay, etc.) should discuss their work with the Instructor *within* fifteen days of the work being returned to the class.
- Make-up midterm tests/assignments and deferred midterm tests/assignments **will not be given**. In cases of documented illness, documented family emergency, or documented religious observance, extra weight will be given to the final examination.
- Midterm tests and the final examination will only be given on the indicated dates, not before.
- 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. You are also required to discuss your needs with your instructor no later than fourteen (14) days after the start of this course.

Safewalk / Campus Security: 220-5333

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2006-08-11