ECON 546   **University of Victoria**

Themes in Econometrics (Section A01)
<u>CRN 24844</u>

Course Outline, Spring 2010
http://web.uvic.ca/~dgiles/teaching/546

Lectures:	Monday, Thursday, 11:30 a.m. - 12:50 p.m., BEC 363
Lab. Classes:	Wednesday, 9:30-10:20a.m., BEC 180. First lab. class is on **13 January**.
	We will be using the EViews package in this course.
Instructor:	David Giles; BEC 364; 721-8540; dgiles@uvic.ca (Office Hours: Monday, Thursday, 9:00 – 10:00 a.m..)
Teaching Assistant:	Omer Khan; okhan@uvic.ca (Office Hour: To be Advised.)
Course Objective:	The objective of this course is to provide a sound understanding of some of the key *principles* that lie behind the various estimation and testing techniques that are used in Econometrics. There will be an emphasis on putting these ideas into practice. Special attention will be paid to major empirical applications, both in the lectures and in the lab. classes.
Course Outline:	(Chapter & Section references in **bold** relate to W. H. Greene, *Econometric Analysis*, 6th edition, Prentice-Hall, Upper Saddle River, NJ, 2008.

Part I: Introduction
    Estimator Properties
    Estimation Frameworks (**Sections 14.1-14.2.1**)

Part II: Maximum Likelihood   **(Chapter 16)**
    Maximum Likelihood Estimation
    Computational Issues
    Likelihood Ratio, Wald & Lagrange Multiplier Tests

Part III: Applications
    Modelling Count Data (**Section 25.2**)
    Systems of Equations (**Sections 10.1, 10.2; parts of Chapter 13**)

Part IV: Bayesian Econometrics
    Bayes' Theorem and Basic Concepts (**Sections 18.1 & 18.2**)
    Constructing Prior Distributions
    Bayes Estimators and Tests (**Section 18.4**)
    Bayesian Analysis of the Linear Regression Model (**Section 18.3**)
    Bayesian Model Selection Theory (**Section 18.4**)
    Markov-Chain Monte Carlo (**Section 18.5**)

Part V: Method of Moments Estimation (Chapter 15)
Method of Moments (**Sections 15.1 & 15.2**)
Generalized Method of Moments (**Section 15.4**)
Applications

Lecture Notes: The overheads used in class will be scanned and placed on the class web page in advance.

Reading Guide: Greene's book (see above) will provide a suitable basic reference in terms of level and style for this course. Other books which will be useful for parts of the course, and which are "On Reserve" (2 hours) in the Main Library, are:

Cramer, J. S., *Econometric Applications of Maximum Likelihood Methods*, Cambridge University Press, Cambridge, 1986. (HB139 C72)
Godfrey, L. G., *Misspecification Tests in Econometrics: The Lagrange Multiplier Principle and Other Approaches*. Cambridge University Press, Cambridge, 1988. (HB139 G63)
Greenberg, E., *Introduction to Bayesian Econometrics*, Cambridge University Press, 2008 (HB139 G733)
Hendry, D. F. & B. Nielsen, *Econometric Modeling: A Likelihood Approach*, Princeton University Press, Princeton, 2007 (HB141 H458)
Koop, G., *Bayesian Econometrics*, Wiley, Chichester, 2003 (HB141 K6443)
Lancaster, T., *An Introduction to Modern Bayesian Econometrics*. Blackwell, Oxford, 2004. (HB139 L3523)
Mátyás, L., *Generalized Method of Moments Estimation*, Cambridge University Press, Cambridge, 1999 (HB141 G46)
Zellner, A., *An Introduction to Bayesian Inference in Econometrics*. Wiley, New York, 1971. (HB74 M3 Z44)

Assessment:

4 Assignments/Problem Sets	**20%**	Mid-Term Test	**20%**
Project (Empirical Application)	**20%**	Final Exam	**40%**

Each piece of assessment in the course will be graded on a percentage scale. These percentage marks will then be weighted, as above, into a single numerical score that will be converted to a letter grade as follows:

90 - 100% = A+	75 - 79% = B+	60 - 64% = C+
85 - 89% = A	70 - 74% = B	55 - 59% = C
80 - 84% = A-	65 - 69% = B-	50 - 54% = D

Less than 50% = F . *No E grades will be assigned.*

Plagiarism and Cheating:
Students are expected to observe the same standards of scholarly integrity as their academic and professional counterparts. Students who are found to have engaged in unethical academic behaviour, including the practices described on pages 32 and 33 of the *University Calendar*, are subject to penalty by the University.

Note:
Students are advised not to make travel plans until after the examination timetable has been finalized. Students who wish to finalize their travel plans at an earlier date should book flights that depart after the end of the examination period (see the University Calendar). **It is Department policy that here will be no special accommodation if travel plans conflict with the examination.**

> *The University of Victoria is committed to promoting, providing and protecting a positive, supportive and safe learning and working environment for all its members.*" (*University Calendar*, p. 10.)