COURSE DESCRIPTION

COURSE TITLE: ECONOMETRICS I
COURSE CODE: ECON 3049
LEVEL: III
SEMESTER: I
NO. OF CREDITS: 3
PRE-REQUISITES: ECON 2006 OR ACCT 2015 OR MATH 2140 & 2150

This is an introductory course in the theory and practice of classical Econometric Methods. The main components of the course deal with Single Equation Models, Dynamic Equation Models, Instrumental Variable Estimation and Multiple Equation Models. The course will be taught using lectures and tutorials. In both cases student participation is required. The course has a coursework component in the form of a group project of 5 students each, where students are required to come together and apply the knowledge learned in the course to a real economic problem of their choosing. This will be graded as 25% of the final mark.

Though this course will focus heavily on applying econometric methods in real-world situations, strict emphasis will also be placed on developing a comprehensive understanding of econometric theory. In addition, the course will utilise datasets and examples that are relevant to the Caribbean region. In this way, the course plays a part in ensuring that students graduating from UWI with an Economics degree can fulfill the University’s mandate to produce graduates with skills that are directly relevant and applicable to the specific set of issues faced by national economic decision-makers.

Some basic knowledge of matrix algebra and elementary statistical theory will be assumed, but a lot of it will be re-introduced during the lectures. Most of the standard texts contain chapters dealing with these topics and students are advised to study them. The computer is a fundamental tool in this course and students will be required to become familiar with the Econometric package, EViews.

INSTRUCTOR INFORMATION

Names        Sonja S. Teelucksingh; Varuna Ramlal
Office /Phone Humanities & Social Sciences Building, Room 210. Tel: 662-2002 Ext 2398
Email        sonja.teelucksingh@sta.uwi.edu
             varuna.ramlal@gmail.com
Office Hours  to be announced in class
Communication Students are encouraged to attend office hours to communicate with all lecturers

Lectures

_full_time_students:_

Tuesdays 1:00 pm – 3:00 pm, LR 2

Evening University Students:

Tuesdays 5:00 pm – 7:00 pm, TCB 2.3

Tutorials  Visit the course website on MyElearning in the first week of term, 5-12 September 2011 and choose one (1) session from the available list. Tutorials begin on Monday 19 September 2011.

COURSE RATIONALE

The main objective of this course is to provide an introduction to what has become known as “modern” econometric methods. This course embeds the student with the skills required for applied graduate work and for applications in professional life. The course is designed for students who want to make a career in applied Economics immediately after obtaining a first degree, and also for students who wish to pursue a graduate degree in Economics. The course is very relevant to the study of economics since it combines the mathematical and theoretical aspects of the subject. It is also very marketable because the training in EViews and econometric analysis conducted in the course are helpful to students who decide to enter the working world and to those who decide to pursue further academic study.

LEARNING OUTCOMES

After successful completion of this course, the student should be able to:

1. Understand the scope and limitations of classical econometric techniques
2. Read, write and properly interpret articles and reports of an applied econometric nature using these techniques.
3. Be in a position to advance upon the basic foundations of econometric theory and practice with some ease.
COURSE CONTENT

1. Introduction to Econometrics:
   a. The scope and purpose of econometrics; the notion of an econometric model;
   b. the importance of economic theory;
   c. the relevance of data and data problems (with particular reference to the Caribbean);
   d. the use of econometric models.

2. Single Equation Models:
   a. The general linear regression model; estimation by Ordinary Least Squares;
   b. calculation and use of the coefficient of determination; the use of non linearity; dummy variables.
   c. The Gauss Markov theorem.
   e. Multicollinearity: problem and resolution.
   f. Specification Errors.
   g. Generalized Least Squares; Heteroscedasticity and autocorrelation: testing and elimination.

3. Introduction to Dynamic Models:
   a. Use in Economic analysis;
   b. Almon Polynomial Distributed models;
   c. Koyck Transformation;
   d. Adaptive Expectations, Stock Adjustment and Error Correction models.

4. Instrumental Variable Estimation:
   a. The notion of consistency;
   b. consistency of the OLS estimator;
   c. the Instrumental Variable estimator;
   d. Errors-in-variables model (measurement errors).

5. Introduction to Multiple Equation Models:
   a. Identification: rank and order conditions.
   b. Consistent estimating procedures: indirect least squares, two-stage least squares.
   c. Evaluation by simulation methods. Forecasting and policy analysis.
TEACHING STRATEGIES

The course will be delivered by way of lectures and tutorials. Attendance at lectures is strongly advised; attendance at tutorial classes is mandatory. Students will be provided with three (3) contact hours weekly: two (2) for lectures and one (1) for tutorials. In addition, the lecturers will announce weekly office hours during which time students are welcome to come by for assistance.

A NOTE ON TUTORIAL ATTENDANCE

Please note that UWI Examination Regulation No. 19 states that —Any candidate who has been absent . . . . or whose attendance at prescribed lectures, classes, ... tutorials, ... has been unsatisfactory . . . . or who has failed to submit essays or other exercises . . . . may be debared by the relevant Academic Board, on the recommendation of the relevant Faculty Board, . . . . from taking any University examinations . . . . “

Please note that the Department of Economics//Faculty of Social Sciences requires students to attend and participate in at least 75% of tutorials for a course to avoid being debarred from taking the final exam.

Please note the following University regulation on plagiarism:

“97. (i) Cheating shall constitute a major offence under these regulations.

(ii) Cheating is any attempt to benefit one’s self or another by deceit or fraud.

(iii) Plagiarism is a form of cheating.

(iv) Plagiarism is the unauthorized and/ or unacknowledged use of another person’s intellectual effort and creations howsoever recorded, including whether formally published or in manuscript or in typescript or other printed or electronically presented form and includes taking passages, ideas or structures from another work or author without proper and unequivocal attribution of such source(s), using the conventions for attributions or citing used in this University.

103. (i) If any candidate is suspected of cheating, or attempting to cheat, the circumstances shall be reported in writing to the Campus Registrar. The Campus Registrar shall refer the matter to the Chairman of the Campus Committee on Examinations. If the Chairman so decides, the Committee shall invite the candidate for
an interview and shall conduct an investigation. **If the candidate is found guilty of cheating or attempting to cheat, the Committee shall disqualify the candidate from the examination in the course concerned, and may also disqualify him/her from all examinations taken in that examination session; and may also disqualify him/her from all further examinations of the University**

**ASSESSMENT**

Assessment will be based both on a practical group project (25%), and a comprehensive final exam (75%) **with no choice**.

Group projects are due the last Friday in November (November 25th 2011) by 4pm to be submitted both in hard copy to the Economics Department Office and on MyeLearning. **Failure to submit on time will result in a penalty of 5% for every day that your submission is late.**

Successful completion of the exam will depend on proper understanding of both the lecture content and the tutorial questions.

**COURSE RESOURCES**

**ESSENTIAL TEXT**