COURSE TITLE: APPLIED ECONOMETRICS
COURSE CODE: ECON 6006
LEVEL: Post Graduate
SEMESTER: II
NO. OF CREDITS: 3
PRE-REQUISITE(S): ECON 2010, ECON 2016, ECON 3049

LECTURER INFORMATION
Sonja S. Teelucksingh
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Preferred Method of Contact: Email
Office Hours: to be determined

COURSE DESCRIPTION/RATIONALE
This course is an advanced introduction to time series econometric methods, logit and probit models, and panel data techniques, and the application of these methods to policymaking and forecasting. It assumes a sound background in undergraduate mathematics and econometrics as covered in ECON2015, ECON2016 and ECON3049 offered at the University of the West Indies. This course will place emphasis on both the development of a comprehensive understanding of econometric theory and also focus on the application of these methods to real world situations. Caribbean examples will be used as much as possible. Students are also expected to be computer literate and to be familiar with the Econometric package, EViews.

LEARNING OUTCOMES
At the end of this course, the student will:
Be able to read, write and properly interpret articles of an applied nature which use these methods
Be able to identify the econometric techniques applicable (and not applicable) to the analyses of different problem sets and research questions
Be able to apply these techniques to real-world situations in the context of rigorous quantitative data analyses

COURSE CONTENT
Introduction
a) The Classical Regression Model
b) Time Series and Cross Sectional Data
c) Maximum Likelihood Estimation
d) Likelihood Ratio and Lagrange Multiplier tests
e) Wald and other “specification” tests

Part A: Time Series Analysis
1. The Nature of Time Series Data
2. Unit Roots
3. Auto-Correlation Functions and Partial Auto-Correlation Functions
4. ARIMA models
5. The Box-Jenkins iterative cycle
6. Seasonality in ARIMA models
7. Modeling Volatility - ARCH and GARCH models
8. Vector Autoregressive Models
9. Cointegration
Part B: Logit and Probit Models
   a) Introduction to Logit and Probit Models
   b) Multinomial Logit Models
   c) Ordered Probit Models

Part C: An Introduction To Panel Data Techniques
   a) Fixed Effects Models
   b) Random Effects Models

TEACHING METHODOLOGY
The course will be delivered by way of lectures. Students will attend one three-hour weekly lecture. Attendance at lectures is strongly advised. In addition, the lecturer will announce weekly office hours during which time students are welcome to come by for assistance.

ASSESSMENT
There shall be one coursework assignment which will account for 40% of the total mark. Students can concentrate their coursework paper on a topic of choice, to be discussed and finalised with the Lecturer. The final examination will account for 60% of the overall mark and will consist of a 3-hour paper with no choice.

COURSE TEXTS
Watson, P.K. and S.S. Teelucksingh (2002), A Practical Introduction to Econometric Methods – Classical and Modern, University of the West Indies Press


In addition, several journal articles will be distributed throughout the course.

ADDITIONAL INFORMATION
Please also take note in your guidelines regulations for Graduate Diplomas and Degrees (available online) of the following regulation:

Section 2 - General Examination Regulation

42. Any candidate who has been absent from the University for a prolonged period during the teaching of a particular course for any reason other than illness or whose attendance at prescribed lectures, classes, practical classes, tutorials, or clinical instructions has been unsatisfactory or who has failed to submit essays or other exercises set by his/her teachers, may be debarred by the Board for Graduate Studies and Research, on the recommendation of the relevant Head of Department, from taking any University examinations.

January 2011