



Course Brochure

Certificate Course in **ECONOMETRIC ANALYSIS OF PANEL DATA**

Presented by the Department of Economics, University of Pretoria

27 June – 1 July 2011

28 November – 2 December 2011

COURSE DESCRIPTION

In this course "panel data" refers to the pooling of observations on a cross-section of countries, households, firms, etc. over a number of time periods. Panel data allows for more informative results, more variability, more degrees of freedom and more efficiency. This course is of an applied nature and focuses on hands-on experience in estimation, interpretation and evaluation of economic relationships, within a panel data context. The course covers techniques applicable to both stationary and non-stationary panel data sets, and includes an introduction to both one-way and two-way error component models (either including individual-specific or period-specific (time) effects, or both). Hypothesis testing includes tests for poolability, fixed effects, random effects, specification, serial correlation and heteroscedasticity, as well as a discussion on the correction thereof. Seemingly unrelated regression models are also discussed, along with topics specific to non-stationary panel data such as unit root testing, estimation of non-stationary panels and cointegration. Dynamic panel estimation also receives attention.

LEARNING OUTCOMES

After completion of this course, candidates should be able to estimate regression models for data organised in a panel and deal with violations of the basic assumptions of regression analysis. They should also be able to apply techniques of unit root testing and cointegration in the case where the panel contains unit roots.

WHO SHOULD ENROL?

Researchers or analysts in any of the following fields of economic application: development economics, public finance and tax policy, socio-economics and health, financial markets, as well as international trade and finance.

LEARNING ASSUMED TO BE IN PLACE

Honours level qualification in time-series Econometrics (including exposure to the concepts of unit root testing and cointegration). An understanding of matrix algebra and experience as a researcher or analyst in any of the fields of economic application. Proficiency in EViews is also advised.

COURSE STRUCTURE AND VENUE

Delegates attend a five-day course, presented in a computer lab on the main campus, University of Pretoria.

CONTENT

Stationary Panel Data

- One-way and two-way error component models
- Hypothesis testing
- Heteroscedasticity and serial correlation
- Seemingly Unrelated Regression (SUR) models

Non-stationary Panel Data

- Unit root tests
- Estimation of non-stationary time series
- Cointegration tests

REFERENCE MATERIAL

Baltagi, B. 2008. *Panel Data Econometrics*. 4th Edition. Chichester: John Wiley and Sons.
Wooldridge, J.M. 2005. *Econometric Analysis of Cross Section and Panel Data*. Cambridge: MIT Press.

APPLICATION SOFTWARE

EViews version 7

PRESENTERS

Lecturers from the Department of Economics, University of Pretoria.

ASSESSMENT AND ACCREDITATION

A University of Pretoria certificate will be awarded upon successful completion of the course. (Recommended new NQF level 8)

COURSE FEE (CE at UP IS EXEMPT FROM VAT)

The course fee is R11 500 per delegate and includes comprehensive lecture notes, textbook, computer lab fees, lunch and refreshments. The fee excludes travel, accommodation and subsistence allowance.

REGISTRATION & ENQUIRIES

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ENQUIRIES REGARDING CONTENT

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