



CONTINUING EDUCATION UNIVERSITY OF PRETORIA

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Course Brochure

Certificate Course in ECONOMETRICS FOR THE PRACTITIONER

Presented by the Department of Economics, University of Pretoria

30 May – 3 June 2011
7 – 11 November 2011

COURSE DESCRIPTION

This course is of an applied nature and focuses on hands-on experience in estimation, interpretation and evaluation of economic relationships. The aim is to reconcile economic theory with practice, thereby empowering delegates with analytical skills and a hands-on approach to decision-making processes. The course begins with a basic introduction to the concepts of regression (ordinary least squares estimation) and statistical inference. Thereafter, attention is given to the violations of the classical linear regression model that are often encountered in applied econometric work – the consequences of these violations are discussed, as well as practical ways of detecting (diagnostic testing) and solving these problems. Various applications of regression analysis, such as forecasting and policy simulation are discussed and applied. The course also includes the discussion of the practical implications of employing non-stationary data in estimation, the detection of unit roots in the underlying data-generating processes and concepts of residual-based cointegration and error-correction modelling.

LEARNING OUTCOMES

After completion of this course, candidates should be able to apply regression analysis, use dummy variables, deal with structural breaks, and deal with violations of the basic assumptions of regression analysis. They should also be able to apply techniques of residual-based (Engle-Granger) cointegration and error correction modelling in the case where time-series data contain unit roots.

WHO SHOULD ENROL?

Experience as a researcher or analyst in any of the following fields of economic application is required: financial markets, socio-economics and health, development economics, public finance and tax policy, or international trade and finance.

LEARNING ASSUMED TO BE IN PLACE

Matric or Grade 12, with exposure to empirical economic analysis. Statistics at the second-year level is advised.

APPLICATION SOFTWARE

EViews version 7

PRESENTERS

Lecturers from the Department of Economics, University of Pretoria.

CONTENT

- Principles and methodology of econometric analysis
- Introductory statistics
- Basics of regression analysis
- Single equation estimation
- Violations of the classical assumptions
- Regressions including dummy variables
- Non-stationarity and unit root testing
- Residual-based (Engle-Granger) cointegration
- Error-correction models.
- Simulation (forecasting and policy analysis).

REFERENCE MATERIAL

Enders, W. 2010. *Applied Econometric Time Series*. 3rd Edition. New York: John Wiley and Sons.
Gujarati, D.N. 2006. *Essentials of Econometrics*. 3rd Edition. McGraw-Hill.
Gujarati, D.N. & Porter, D.C. 2009. *Basic Econometrics (International Edition)*. 5th Edition. McGraw-Hill/Irwin.
Harris, R. and Sollis, R. 2003. *Applied Time Series Modelling and Forecasting*. John Wiley and Sons. (This text is based on an earlier title, which is out of print: Harris, R. 1995. *Using Cointegration Analysis in Econometric Modelling*. London: Prentice Hall.)

COURSE STRUCTURE AND VENUE

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

ASSESSMENT AND ACCREDITATION

A University of Pretoria certificate will be awarded upon successful completion of the course. (Recommended new NQF level 7)

COURSE FEE (CE at UP IS EXEMPT FROM VAT)

The course fee is R11 500 per delegate and includes comprehensive lecture notes, text books, 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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