



CONTINUING EDUCATION UNIVERSITY OF PRETORIA

Tel: +27(0) 12 420 5015

Fax: +27(0) 12 420 5465

E-mail: data.ce@up.ac.za

Graduate Centre, Main Campus

University of Pretoria

www.ceatup.com

Course Brochure

Certificate Course in

ECONOMETRIC ANALYSIS OF COINTEGRATION

Presented by the Department of Economics, University of Pretoria

1 - 4 June 2010

9 - 12 November 2010

COURSE DESCRIPTION

This course addresses appropriate modelling techniques for time-series data when unit roots are present in the data (i.e. data is non-stationary) - a problem that applied economists encounter in almost all economic time-series applications. To ignore the fact that data may be non-stationary and to proceed to estimate a regression model containing non-stationary variables, at best ignores important information about the underlying statistical and economic processes generating the data, and at worst leads to nonsensical (or spurious) results. Therefore, to begin with, an initial understanding of the common technical characteristics of time-series data is provided. Thereafter, the concept of stationarity is formally defined, together with a discussion of its implications for ordinary least squares estimation. Consequently, attention is then focused on the advanced econometric techniques of cointegration and error-correction models, with emphasis on their empirical application. To conclude, the notion of multivariate cointegration is discussed and applied.

LEARNING OUTCOMES

After completion of this course candidates should be able to: understand and apply non-stationary time-series analysis; understand the concept of stationarity and be able to test the order of integration of time series through the application of unit root tests; and to apply the advanced econometric techniques of cointegration and error-correction modelling, both in residual-based and multivariate contexts.

WHO SHOULD ENROL?

The course is relevant for researchers and analysts in all fields of economic application: business, financial markets, socio-economics and health, development economics, public finance and tax policy, as well as international trade and finance.

LEARNING ASSUMED TO BE IN PLACE

A B-degree with a second year tertiary Statistical qualification.

PRESENTERS

Lecturers from the Department of Economics, University of Pretoria.

COURSE STRUCTURE AND VENUE

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

CONTENT

- Data generating processes
- Stationary vs. non-stationary time series
- Cointegration in single equations
- Error-correction models (ECM)
- Multivariate cointegration

Due to the large content overlap between this course and the Econometrics for the Practitioner course, we discourage delegates to enrol for both courses.

REFERENCE MATERIAL

Enders, W. 2005. *Applied Econometric Time Series*. 2nd Edition. New York: John Wiley and Sons.

Harris, R. 1995. *Using Cointegration Analysis in Econometric Modelling*. London: Prentice Hall.

APPLICATION SOFTWARE

EViews version 6

ASSESSMENT AND ACCREDITATION

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

COURSE FEE (CE at UP IS EXEMPT FROM VAT)

The course fee is R10 000 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

Sarita Vosloo

Tel: +27 (0)12 420 5015

Fax: +27 (0)12 362 5285

E mail: sarita.ce@up.ac.za

ENQUIRIES REGARDING CONTENT

Reneé van Eyden (Course leader)

Tel: +27 (0)12 420 3456

E mail: renee.vaneyden@up.ac.za

Cathy Knoesen (Department of Economics)

Tel: +27 (0)12 420 3459

E mail: cathy.knoesen@up.ac.za



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Further Your Future **With Us**