



Econometric Analysis of Panel Data

Presented by the School of Economic Sciences, University of Pretoria

The **Econometric Analysis of Panel Data** short course focuses on hands-on experience in the estimation, interpretation and evaluation of economic relationships within a panel data context. The course covers various models for analysis, including static-linear, fixed-effects, least-squares dummy variables, one-way and two-way error components, and the pooling of slope and intercept coefficients. The course also gives you an in-depth look into hypothesis testing, problems of heteroscedasticity and autocorrelation, endogenous regressors, dynamic linear model specifications and panel time-series issues and estimation. You will also be able to put your skills to the test during practical evaluations and estimations of panel data.

Course content

Stationary panel data

- One-way error component models
- Two-way error component models
- Hypothesis testing

IV and dynamic panel data

- Instrumental variables
- Dynamic panel data models

Panel heterogeneity revisited, spatial dependence

- Heterogeneity in slope coefficients
- Cross-sectional dependence

Non-stationary panel data

- Overview of the issues
- Unit root tests
- Estimation of non-stationarity panels
- Cointegration tests

Learning outcomes

After successful completion of this programme, you will be able to

- estimate regression models for data organised in a panel
- deal with violations of the basic assumptions of regression analysis, and
- apply techniques of unit root testing and cointegration.

Who should enrol?

This course is ideal for you if you are a researcher or analyst in all fields of economic application, including development economics, public finance and tax policy, socioeconomics and health, financial markets, as well as international trade and finance.

The method of presentation

- The lecturer will provide a schedule for the live sessions, a live session will take place for 2.5 hours a day (morning or afternoon)
- The live sessions will be scheduled over the two weeks (programme will be provided)

- After the live session you will follow the rest of the programme and complete the daily activities
- Each live session will be recorded and made available to watch later
- All course material will be made available on Click UP
- The lecturer will schedule a one on one session with you to discuss any areas you have issue or need assistance in.

Course fees

R11 000.00 per delegate (VAT incl.)

Course fees include all course material, refreshments and other materials.

Course fees must be paid in full 14 days prior to course start dates. Proof of payment can be submitted to enrolments@enterprises.up.ac.za.

Admission requirements

Prospective delegates should at least have a relevant honours degree. An understanding of matrix algebra is essential, as well as experience as a researcher or analyst in any of the fields of economic application. Proficiency in EViews® and Stata software is recommended.

Accreditation and certification

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Registration and enquiries

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Shifting knowledge to insight

