



Econometrics B

Module Code: ECU33092

Module Title: Econometrics B

- **ECTS Weighting:** 5
- **Semester/Term Taught:** Hilary Term
- **Contact Hours:** 22 hours of lectures and approximately 9 hours of lab sessions
- **Module Personnel:** Professor Gaia Narciso

Module Learning Aims

This module provides an introduction to the theory and methods of modern econometrics. It begins by reviewing and extending the econometrics material covered in Econometrics A. Following this, students are guided through the fundamental principles of econometrics and work through more advanced topics as the module progresses. The module provides a balance between core theoretical material and an extensive applied component, which aims to develop students' practical skills necessary to conduct independent applied research.

Module Learning Outcomes

On successful completion of this module, you will be able to:

- Confidently discuss the problem of identification;
- Estimate and test models using instrumental variables and two stage least squares;
- Perform basic time series analysis;
- Use the techniques developed to test economic models;
- Use Stata to estimate econometric models;
- Present a research topic and research plan and write an empirical paper on an applied research topic.

Module Content

Topics discussed include:



- Instrumental variable analysis;
- Experiments and Quasi-experiments.
- Introduction to Time-Series Analysis: Stationarity/non-stationarity; unit roots and cointegration; MA, AR and ARMA models.
- Misspecification of Disturbance Terms: Autocorrelation.
- Predictions with many regressors and big data.

Recommended Reading List

Stock, J.H. and M.W. Watson. Introduction to Econometrics, Pearson (4e), 2019.

Angrist, J.D. and J. Pischke. Mastering Metrics, Princeton University Press, 2015.

Module Pre Requisite

ECU33091 Econometrics A

Assessment Details

- A project worth 30% of the overall grade.
- The annual in-person exam is worth 70% of the overall grade.

Module Website

Blackboard.

Contact information

Professor Gaia Narciso

Room 3005, Arts Building

E-mail: narcisog@tcd.ie

Office hours: book [here](#)