

LSE

INTRODUCTION TO ECONOMETRICS

The problem, for those concerned with social or economic policy, is that we seldom have the luxury of being able to undertake controlled experiments of the type conducted by natural scientists. Instead, we have to draw our inferences from the analysis of non-experimental data, and that is the function of econometrics.

This introductory course is intended to serve two constituencies:

Professionals: Each year the course is attended by many professionals who have found that the acquisition of econometric skills would be valuable in their work. Included in this category are PhD students, typically in disciplines other than economics, who are including a serious empirical component in their dissertations.

Undergraduate students: Many participants are college students from other universities. Those from the US ought to be able to negotiate credit worth at least one semester since the teaching is at the same standard as that for EC220, the regular-year LSE course taken by economics majors, and the course is distinctly more ambitious in both coverage and depth than the typical one-semester introductory econometrics course in the US.

Prerequisites

At least one semester of mathematical statistics with a serious analytical treatment of estimation and inference, and at least one semester of multivariate calculus, both passed at a respectable standard.

Programme structure

- Simple Regression Analysis

- Properties of Regression Coefficients and Hypothesis Testing
- Multiple Regression Analysis
- Transformation of Variables
- Specification of Regression Variables
- Heteroscedasticity
- Stochastic Regressors and Measurement Errors
- Simultaneous Equations Estimation
- Modelling Dynamic Processes
- Autocorrelation
- Logit and Probit (binary choice models)