

# Microeconometrics

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## Course content:

This part of the Econometrics course introduces students to basic econometric techniques for the analysis of observational cross-sectional and panel data. Students will learn how to develop, estimate, interpret and present results from microeconomic models for so-called limited dependent variables and linear models for the analysis of panel data. The characteristics of this type of data are such that statistical and econometric techniques appropriate for their treatment have a specific nature, generally differentiated from those appropriate for time series data. The qualitative nature of most of the information, the representativity of the samples used and the censoring issues associated to the dependent variables are, among others, some of the aspects that distinguish these techniques from an econometric perspective. Furthermore, the growing importance of this type of information has also meant that a significant number of official surveys from different countries have a panel data structure. This type of data has some econometric advantages and also requires the use of specific techniques.

## Topics and methods:

### a. Models for limited dependent variables

1. Binary choice models
2. Multi-response models: ordered and multinomial models
3. Count data models
4. Censoring, truncation and sample selection

### b. Introduction to panel data models

1. Static linear models
2. Dynamic linear models

The course consists of lectures and laboratory sessions. Empirical illustrations and examples discussed in class will be based on the STATA software.

## References:

M. Verbeek, *A guide to modern econometrics*, chapters 7 and 10.

Further readings on specific topics will be suggested during the lectures