

**Instituto Superior de Economia e Gestão**  
**Universidade de Lisboa**  
PhD in Economics  
Advanced Econometrics  
(Academic Year: 2019/2020)

**Module Lecturer:** Paulo M.D.C. Parente

**Contact details:**

**Office:** Room 301, Quelhas no. 2

**email-address:** pparente@iseg.ulisboa.pt

**Webpage:** <https://sites.google.com/site/paulomdcparente/>

## **Module Outline and Information**

### **1 Objectives**

- To explore important theoretical questions of microeconometrics and macroeconometrics that are not usually taught at the BSc and MSc levels in economics;
- To provide the students with the necessary econometric and methodological research tools to equip them for carrying out empirical research projects.
- To develop the students' ability for doing research.

### **2 Syllabus Plan**

1. Topics in Microeconometrics:
  - (a) Maximum Likelihood Estimation
  - (b) Discrete Choice Models
  - (c) Ordered Data and Count Data Models
  - (d) Limited Dependent Variable Models
2. Topics in Time Series
  - (a) Univariate Time Series Models.
  - (b) Modelling volatility: GARCH Models.
  - (c) Multivariate Time Series Models.
  - (d) Advanced topics in Unit Roots and Cointegration.

### **3 Assessment**

Two-hour written examination. The students that fail the module can take the resit exam (two-hour exam). Only one sheet (2 sides A4) of notes made exclusively by the student may be consulted in the exams. Students are responsible for printing the statistical tables available in the website of the module and for taking them to the examination. Students are not permitted to write any notes in the statistical tables.

## 4 Indicative Learning Resources

Cameron, A. C. e Trivedi P. K. (2005). Microeconometrics, methods and applications, Cambridge University Press.

Enders, W. (2014), Applied Econometric Time Series, Wiley

Greene, W. (2017) Econometric Analysis, 8th Edition, Pearson (recommended textbook)

Hamilton, J. D. (1994), Time Series Analysis, Princeton University Press.

Wooldridge, J.M. (2010). Econometric Analysis of Cross Section and Panel Data , 2nd Edition, MIT Press