Econometrics I (20844 and 21134)

Degree/study: AD/E Grau (Groups 1 and 2) and also IBE (Group 1)
Course: 2
Term: third
Number of ECTS credits: 5.0 credits
Hours of student's dedication: 100 hours
Language or languages of instruction: English
Professor: Christian Fons-Rosen [Oficina 20.134] [Christian.fons-rosen@upf.edu]
Teaching Assistants:
AD/E Grau (20844): Adrian Lerche [101, 103], Florens Odendahl [102, 201], Florian Korte [202], Dimitria Gavalyugova [203]

IBE (21134): Hrvoje Stojic [101, 102], Qiang Li [103]

Theory lectures:
AD/E Grau (20844): Monday and Tuesday, 14.30-16.00
[Aula: 13.007]

IBE (21134): Monday and Tuesday, 16.30-18.00
[Aula: 40.148]

Seminar lectures with Teaching Assistants:
AD/E Grau (20844): Wednesdays
[101: 13.00-14.30 in 40.153; 102: 9.00-10.30 in 40.153; 103: 14.30-16.00 in 40.153]
[201: 13.00-14.30 in 13.107; 202: 9.00-10.30 in 13.107; 203: 14.30-16.00 in 13.107]

IBE (21134): Thursdays
[101: 10.30-12.00 in 40.145; 102: 9.00-10.30 in 40.145; 103: 12.00-13.30 in 40.145]

1. Presentation of the subject

Econometrics I teaches how to make quantitative inferences about causal effects using cross-sectional experimental and observational data. Most of the course focuses on multiple regression analysis as a way to mitigate bias, particularly in observational studies.

2. Competences to be attained

This first econometrics course will allow the student to be familiarised with the basic foundations of regression analysis and its principal problems. All this, combined with a rigorous analytical perspective and a wide array of practical examples, solved with the help of standard econometric packages.

3. Contents

Review of Statistics, Estimation and Inference for Bivariate Regression, Estimation and Inference for Multiple Regression, Non-linear Regression Models, Reverse Causality Bias, Measurement Error Bias, Sample Selection Bias

4. Assessment

Regular term: Midterm exam: 40%; Final exam: 60%

The partial exam will be on May 20th from 11.00 to 13.00.

Those who did not pass the course during the regular term can go to the "examen de recuperación" if they obtained at least a grade of 3 out of 10 or above during the regular term. For those doing the "examen de recuperación", the final grade will be 100% the one obtained in that exam.

There will be weekly problem sets to be solved, and they will have both a theoretical and also an empirical focus. They do not count for the final grade, but they are very important to prepare both the midterm and the final exam. All the info about the course can be found in Aula Global.

5. Bibliography and teaching resources

5.1. Basic bibliography

J.H. Stock and M.W. Watson, *Introduction to Econometrics* (third edition), Addison-Wesley. There is also a Spanish version of the textbook.

This book is also recommended for Econometrics II and for other courses, apart from for many general econometrics doubts.

6. Methodology

Combination of lectures (theory classes) and practical sessions involving theoretical and data exercises.

The course statistical software is Stata, which is available on UPF computers. We have prepared a basic guide to Stata to familiarize yourself with the program. The first practical session will also be focus on an introduction to Stata.

7. Practical Sessions

Seminar 1: ADE – April 22th; IBE – April 16th

Seminar 2: ADE – April 29th; IBE – April 30th

Seminar 3: ADE – May 6th; IBE – May 7th

Seminar 4: ADE – May 13th; IBE – May 14th

Seminar 5: ADE – May 20th; IBE – May 21st

Seminar 6: ADE – May 27th; IBE – May 28st (Mid-term exam correction)

Seminar 7: ADE – June 3rd; IBE – June 4th

Seminar 8: ADE – June 10rd; IBE – June 11th