Universitat Pompeu Fabra Barcelona

Academic Year: 2025/26

21901 - Applied Econometrics

Teaching Guide Information

Academic Course: 2025/26

Academic Center: 304 - Faculty of Law and Economics
332 - Faculty of Economic and Business Sciences

Study: 3041 - Double bachelor's degree programme in Law and Business Management and Administration / Economics
3324 - Bachelor's degree in Business Management and Administration

Subject: 21901 - Applied Econometrics

Credits: 5.0

Course: 418 - Bachelor's degree in Economics: 4
412 - Bachelor's degree in Business Sciences: 4
418 - Bachelor's degree in Economics: 3
412 - Bachelor's degree in Business Sciences: 3
417 - Bachelor's degree in Business Management and Administration: 3
417 - Bachelor's degree in Business Management and Administration: 4
523 - Double bachelor's degree programme in Law and Business Management and Administration / Economics: 6

Teaching languages:

Theory:	Group 1: English
Seminar:	Group 101: Pending
	Group 102: Pending

Teachers:

Teaching Period: Third term

Presentation

The course will introduce the student into the empirical analysis of some economic issues using econometric techniques. The course will be organized around some economic topics, closely related to some papers in the literature. There will be a general emphasis on the usual stages in applied work in economics:

- How to define the question to be analysed (objective)
- The economic theory framework corresponding to the empirical model
- The type of data necessary (and available) for the analysis
- The econometric techniques adequate for the exercise given the characteristics of the data and the model
- The interpretation of the results
- The elaboration of the conclusions

The course will pay specific attention to the econometric techniques used in the different topics.

Contents

1. Policy Evaluation Methods (PEM)
   - Social Experiments
   - Natural Experiments: Diff-in-Diff

- Matching: Propensity score matching
- Regression discontinuity design

2. Multinomial discrete choice models (MDCM)
- Multinomial Logit and Conditional Multinomial Logit
- Independence of Irrelevant Alternatives (IIA)
- Nested Logit
- Mixed Logit
- Ordered models

4. Multi-level and Panel data (PD)
- Multi-level Models
- Linear Panel Data Models
- Discrete Choice Panel Data Models
- Dynamic models

5. Introduction to Big data analysis

- Overview
- Introduction to Lasso Regression

There will also be additional empirical references for each topic to be discussed in the presentations.

Evaluation and grading system

NOTA: L'assignació docent d'aquesta assignatura està pendent, per tant tot i que la descripció de l'assignatura no variarà, altres aspectes d'aquest PDA poden canviar un cop acabada l'assignació docent.

NOTE: The teaching assignment for this course is pending, therefore, even if the course description will not change, other aspects of this syllabus may be different once the teaching assignment has been finalized.
In order to pass the course, the student should obtain at least 50 points out of 100, minimum of 20 from the exam, according to the following distribution:

Assignments/Participation: 10 points

Paper presentation: 15 points

Empirical essay and presentation: 25 points

Exam: 50 points

For those not passing the course in June and who have obtained at least 15 points in the exam and have attended and participated in the seminars, there will be a second chance to take the exam in July.

ALL students enrolled in the course are subject to the criteria described in this PDA, as well as to the dates of delivery of assessable and examinations. This includes those who come from exchange agreements.