

## 27629 - Econometrics

### Syllabus Information

**Academic Year:** 2019/20

**Subject:** 27629 - Econometrics

**Faculty / School:** 109 - Facultad de Economía y Empresa

**Degree:** 450 - Degree in Marketing and Market Research

**ECTS:** 6.0

**Year:** 3

**Semester:** Second semester

**Subject Type:** Compulsory

**Module:** ---

### 1.General information

#### 1.1.Aims of the course

#### 1.2.Context and importance of this course in the degree

#### 1.3.Recommendations to take this course

### 2.Learning goals

#### 2.1.Competences

#### 2.2.Learning goals

#### 2.3.Importance of learning goals

### 3.Assessment (1st and 2nd call)

#### 3.1.Assessment tasks (description of tasks, marking system and assessment criteria)

### 4.Methodology, learning tasks, syllabus and resources

#### 4.1.Methodological overview

The methodology followed in this course is oriented towards achievement of the learning objectives. It favors the understanding of the different econometrics processes. A wide range of teaching and learning tasks are implemented, such as theory sessions, computer practice sessions and tutorials.

Students are expected to participate actively in the class throughout the semester.

Classroom materials will be available via Moodle. These include a repository of the lecture notes used in class, the course syllabus, as well as other course-specific learning materials.

Further information regarding the course will be provided on the first day of class.

#### 4.2.Learning tasks

The course includes 6 ECTS organized according to:

- Lectures (3 ECTS: 75 hours). Lecture notes and problem sets (with its solutions) will be available for the students. At the end of each topic, some of the problems will be solved in class by the professor and the rest will be done individually.
- Computer practice sessions (3 ECTS: 75 hours). These 2-hour sessions take place every week. Students are provided with the practical exercises' instructions as well as a theoretical introduction to the session's contents.

### 4.3.Syllabus

The course will address the following topics:

- Section 1. Introduction
  - Topic 1. What is Econometrics?
  - Topic 2. Econometrics Models and Method
- Section 2. Linear Regression
  - Topic 1. Specification and Classical Regression Assumption
  - Topic 2. Estimation and Properties
  - Topic 3. Interpretation of Ordinary Least Square
  - Topic 4. Effect of Data Scaling on OLS Statistic
- Section 3. Inference
  - Topic 1. Measures for Model Fit
  - Topic 2. Test about a single Constraint
  - Topic 3. Test about several constraints
- Section 4. Model Checking
  - Topic 1. Test for Functional Form Misspecification
  - Topic 2. Test for Heteroskedasticity.
  - Topic 3. Multicollinearity in Regression Models
- Section 5. Linear Probability Model
  - Topic 1. Specification and Interpretation of LMP
  - Topic 2. Main Linear Probability Model Problem
- Section 6. Logistic Probability Model
  - Topic 1. Specification and Interpretation of Logit Model
  - Topic 2. Criteria for Model Selection

### 4.4.Course planning and calendar

Further information concerning the timetable, classroom, office hours, assessment dates and other details regarding this course, will be provided on the first day of class or please refer to the Faculty of Economics and Business website (<https://econz.unizar.es/>)

### 4.5.Bibliography and recommended resources