

Subject	Introduction to Empirical Research I (E)	Semester, Date and Period of the class	Spring Semester Monday, 3 rd Period
Subject selection	Specialized Courses	Years	1-4
Instructor	Maria MARTIN-RODRIGUEZ (Graduate School of Economics)		
<p>Purpose and aim of the class: The course aims at fostering the students' voluntary exploration ability through the provision of the necessary research tools to analyze real-life problems in which the data set is collected as a cross-section. Through a combination of theory and data, we will learn the restrictive assumptions that support the consistent estimation in the simple regression model, and how to proceed when these assumptions do not hold in our dataset.</p>			

Class content

1 (April 13)	Test. Introduction.
2 (April 20)	The Simple Regression Model. OLS.
3 (April 27)	The Simple Regression Model. OLS.
4 (May 11)	The Simple Regression Model. OLS. <i>Problem Set 1</i> and <i>Computer Session 1</i> .
5 (May 18)	Multiple Regression Analysis: Estimation.
6 (May 25)	Multiple Regression Analysis: Estimation. <i>Problem Set 2</i> and <i>Computer Session 2</i> .
7 (June 1)	Multiple Regression Analysis: Inference.
8 (June 8)	Multiple Regression Analysis: Inference. <i>Problem Set 3</i> and <i>Computer Session 3</i> .
9 (June 15)	Multiple Regression Analysis with Qualitative Information: Binary Variables. <i>Quiz 1</i> .
10 (June 22)	Models with Endogenous Explanatory Variables: IV.
11 (June 29)	Models with Endogenous Explanatory Variables: 2SLS. <i>Problem Set 4</i> .
12 (July 6)	Models with Endogenous Explanatory Variables: Testing for Endogeneity and Testing Overidentifying Restrictions. <i>Computer Session 4</i> .
13 (July 13)	Heteroskedasticity. <i>Quiz 2</i> .
14 (July 20)	Heteroskedasticity.
15 (July 27)	Final Exam.
<p>Evaluation: 2 quizzes (15% each), 1 final project (30%), final exam (40%).</p>	
<p>Direction for preliminary study: Students must be familiar with the Σ-notation, random variables, expectations, variances, covariances, the Normal distribution, the t-distribution, and the F-distribution. A test will be conducted on the first session. The students who didn't take Econometrics I and II can only take this course if they pass the test.</p>	
<p>Textbooks and Reference books: Jeffrey M. Wooldridge – Introductory Econometrics: A Modern Approach.</p>	
<p>Notice to students:</p> <ol style="list-style-type: none"> 1) Although we will use Stata, other software packages such as R, EViews, or Gretl are also acceptable. 2) The course withdrawal system is NOT used. Withdrawal deadline: May 20th. 3) Office hours: by appointment. 	