Universidad Zaragoza

Academic Year/course: 2022/23

61340 - Econometrics: a Case Study

Syllabus Information

Academic Year: 2022/23
Subject: 61340 - Econometrics: a Case Study
Faculty / School: 109 - Facultad de Economía y Empresa
Degree: 525 - Master's in Economics
ECTS: 3.0
Year: 1
Semester: Second semester
Subject Type: Optional
Module:

1. General information

1.1. Aims of the course

In order to pass this course, the student must demonstrate knowledge to estimate empirical models, make predictions and be able to interpret these models from an economic point of view.

The course can be understood as an initiation step for the student into the world of research. Given its applied aspect, at the end of the course the student will have several tools that will allow him/her to carry out basic studies on multiple aspects of economics. Therefore, it is a subject that can provide students with very useful elements to carry out all kinds of applied work.

These approaches and objectives are aligned with the following Sustainable Development Goals (SDGs) of the United Nations Agenda 2030 https://www.un.org/sustainabledevelopment/es/), so that the acquisition of the learning outcomes of the subject provides training and competence to contribute to some extent to their achievement. Specifically, the tools studied in the course are directly related to most of the SDGs. Taking into account the usual lines of work, the following SDGs can be highlighted:

Goal 3. Health and well-being.

Goal 12. Responsible production and consumption

Goal 13. Climate action

1.2. Context and importance of this course in the degree

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1.3. Recommendations to take this course

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2. Learning goals

2.1. Competences

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2.2. Learning goals

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2.3. Importance of learning goals

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3. Assessment (1st and 2nd call)

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

Course assessment will be onsite. In the case of a new pandemic wave assessment will become partly online or fully online. It should be noted that in any online assessment task the student performance may be recorded, following the regulations described in: ?https://protecciondatos.unizar.es/sites/protecciondatos.unizar.es/files/users/lopd/gdocencia_reducida.pdf?_

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. A wide range of teaching and learning tasks are implemented, such as lectures, student participation, practical activities and autonoomus work (preparation of classes, readings, problems). The practical part prevails over the theoretical one.

Computing resources will be used, especially GRETL, STATA and GAUSS.

All lectures and seminars will be imparted on site. In the case of a new health emergency caused by the current pandemic all teaching will be moved online.

4.2. Learning tasks

The course includes the following learning tasks:

- Lectures (20 hours): compulsory attendace
- Autonomous work (45 hours): preparation of coursework and assignments, and study
- Presentation and defense of assignments (10 hours): compulsory attendance

4.3. Syllabus

The course will address the following topics:

Topic 1. Introduction

Topic 2. Prices, inflation and Exchange rates

Topic 3. Labour market: structuralist models vs hysteresis

Topic 4. Economic cycles

Topic 5. Stochastic convergence

Topic 6. Public Sector models

4.4. Course planning and calendar

Provisional calendar of dates:

Topic	Dates
Prices, inflation and Exchange rates - Persistence - Fractional Integration - Threshold models - STAR models	2nd week February
Labour market: structuralist models vs hysteresis - Structural change - Bai-Perron methodology	4th week February
Economic cycles - Markov-Switching models - Cycle concordance - Cycle dating	2nd week March
Stochastic convergence - Unit root tests	4th week March

- Stationarity tests - Deterministic trends	

Public Sector models
  - Cointegration
  - Error correction mechanism
  - Johansen methodology
	2nd week April

Presentation and discussion of assignments	May

4.5. Bibliography and recommended resources

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