

## **OIECOX12 - Econometrics**

Professor: Younes TAKKI CHEBIHI Course level: L3 undergraduate

**Domain**: Economics

Department: International affairs

Teaching language: English
Semester: 1

Number of in-class hours: 33

Number of course sessions: 10 + Exam

**ECTS**: 6

#### Course description and objectives

The aim of this course is to provide the basic knowledge of econometrics, both theoretically and practicality. At the end of the semester, the student should be able to handle a basic database and generate first estimates using linear models, as well as providing accurate interpretations and basic theoretical calculus. The objective of the course is also to provide an overview of different areas of econometrics in order to prepare students for further specialized courses in the postgraduate level.

#### **Prerequisites**

The course requires a good knowledge of statistics and probability with the treatment of estimation and inference. It is also recommended to have a basic knowledge of linear algebra. The first session will be dedicated to reviewing these fundamentals.

## Assignments and grading

The final grade is determined by two scores. A first one consisting of homeworks and quizzes, and a second one based on a final exam.

\*The numerical grade distribution will dictate the final grade. The passing grade for a course is 10/20\*.

**Class participation:** Active class participation – this is what makes classes lively and instructive. Come on time and prepared. Class participation is based on quality of comments, not quantity.

**Exam policy:** In the exam, students will not be allowed to bring any document (except if allowed by the lecturer). Unexcused absences from exams or failure to submit cases will result in zero grades in the calculation of numerical averages. Exams are collected at the end of examination periods.

#### Course structure

The following structure is indicative and not exhaustive and may evolve throughout the semester:

- Introduction and fundamentals review (Probability, Statistics...).
- Econometrics basic knowledge and fundamentals of regression analysis:
  - Linear Regression, using one and several regressors.
  - Hypothesis tests and threats to the model's validity.
- Further topics:
  - o Regression with Binary dependent variable
  - o Instrumental variable regression
  - Experiments and Quasi-Experiments methods
  - o Predictions in a rich-data environment
  - Introduction to time series regressions.



# **Bibliography**

• Introduction to Econometrics, Stock and Watson, Pearson.

# Academic integrity

Be aware of the rules in Université Paris Dauphine about plagiarism and cheating during exams. All work turned in for this course must be your own work, or that of your own group. Working as part of a group implies that you are an active participant and fully contributed to the output produced by that group.