

Program

Course: Econometrics I

CH: 60 HS

Credits: 4

OVERVIEW

As the first course of Econometrics, and the only one to be compulsory, it aims to provide the fundamentals of econometric theory to students who wish to delve deeper into this area; to prepare those who will only undertake this course so that they can develop studies of applied econometrics and provide basic knowledge necessary to accompany the modern economic literature to all the students, since econometrics is an increasingly important area.

Program Content

1. The Classical Linear Regression Model
 - 1.1. Specification and estimation
 - 1.2. Inference
 - 1.3. Functional Form
 - 1.4. Nonlinearity and Specification
 - 1.5. Nonlinear Regression Models

2. Asymptotic theory applications to Econometrics and Instrumental variables
 - 2.1. Asymptotic Properties of Least Square Estimators
 - 2.2. Asymptotic Tests of Hypothesis
 - 2.3. Instrumental Variable Estimation Method
 - 2.4. Maximum-likelihood Estimation

3. The Generalized Regression Model
 - 3.1. Consequences of Non spherical disturbances
 - 3.2. Autocorrelated Disturbances
 - 3.3. Feasible Generalized Least Square
 - 3.4. Synthesis of major Extensions to Basic Methods

Methodology

Theoretical and practical classes

Examination

Two Exams

Paper

References

GREENE, W. H. (2003) *Econometric analysis*. 7th Edition. New Jersey: Prentice-Hall,

WOOLDRIDGE, J.M. . Econometric Analysis of Cross Section and Panel Data. 2nd edition. The MIT Press. 2010.

GREENE, WILLIAM. Econometric Analysis. Prentice Hall, 7th edition, 2011.

BALTAGI, BADI H. Econometrics, 5th ed., Springer, 2011.

MACKINNON, J.G e DAVIDSON, R. Estimation and Inference in Econometrics, Oxford, 1993.

DINARDO, J. e JOHNSTON, J. Econometric Methods, 4th McGraw Hill, 1997.

WOOLDRIDGE, J.M. INTRODUÇÃO À ECONOMETRIA: Uma abordagem moderna - Tradução da 4a edição norte-americana.

GUJARATI, D.M.; PORTER, D.W. ECONOMETRIA BÁSICA. 5o ed., McGraw Hill, 2011.

Softwares

Stata

R – available in <https://www.r-project.org/>

R-Studio (More user-friendly interface, which facilitates the use of R - R is needed. Available in <https://www.rstudio.com/>

Note: This is a suggestion. Student may use other software.