



University Department: Social and Applied Sciences Center

Curricular Component: Course-exclusive

Program: Economic Sciences

Thematic Core: Theoretical-Quantitative Education Content

Curricular Component Name: **ECONOMETRICS I**

Course Hours: 63.3 hours	(X) Theoretical () Practical	Stage: 5
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Course Overview:

Definition of econometrics. Confrontation between the mathematical model and the statistical model. Study of the use of estimation methods and analysis of regression results. Model evaluation and its results. Interpretation of violation of assumptions. Identification of applied econometrics problems, search for solutions and evaluation of the obtained results. Preparation for conducting empirical studies of social, economic and financial phenomena using cross-sectional data for applied economics disciplines.

Topic Outline:

1. Introduction
 - 1.1. What is econometrics?
 - 1.2. Mathematical model and statistical model

2. Estimators and their properties

3. Linear regression model
 - 3.1. Model Specification and Assumptions
 - 3.2. Model Estimation
 - 3.3. Model and result evaluation
 - 3.4. Variance and covariance matrix
 - 3.5. Analysis of Variance
 - 3.6. Forecast and Forecast Range
 - 3.7. Use of econometric software
 - 3.8. Reporting Results: Analytical Report

4. Alternative functional forms and elasticity

5. Multilinear regression model
 - 5.1. Omission of relevant variables / inclusion of irrelevant variables

6. Binary Variables

7. Violation of assumptions
 - 7.1 - Multicollinearity
 - 7.2 - Residual Normality
 - 7.3 - Specification Bias



Basic References:

HILL, Carter ; GRIFFITHS, William ; JUDGE, George. Econometria. São Paulo: Saraiva, 2010. Minha Biblioteca. Available at: <<http://online.minhabiblioteca.com.br/books/9788502109735>> .

GUJARATI, Damodar N. ; PORTER, Dawn C. . Econometria Básica. Porto Alegre: AMGH, 2011. Minha Biblioteca. Available at: <<http://online.minhabiblioteca.com.br/books/9788580550511>> .

WOOLDRIDGE, Jeffrey M. Introdução à econometria: uma abordagem moderna. São Paulo: Cengage Learning, 2012.

Additional References:

JOHNSTON, Jack; DINARDO, John. Métodos econométricos. 4. ed. New York: McGraw-Hill, 2001.

KENNEDY, Peter. Manual de econometria. Rio de Janeiro: Elsevier, 2009.

MADALLA, G.S. Introdução à Econometria. São Paulo: LTC, 2004.

RUBINFELD, D e PINDYCK, R.S. Econometria. Rio de Janeiro: Campus, 2004.

STOCK, J.H. e WATSON, M.W. Econometria. São Paulo: Addison Wesley, 2004. Biblioteca Virtual Universitária 3.0