Study Programme: MB-Applied mathematics

Course Unit Title: Econometrics

Course Unit Code: MB12

Name of Lecturer(s): Zorana Lužanin

Type and Level of Studies: Master Academic Degree

Course Status (compulsory/elective): elective

Semester (winter/summer): summer

Language of instruction: serbian

Mode of course unit delivery (face-to-face/distance learning): face-to-face

Number of ECTS Allocated: 6

Prerequisites: Statistics

Course Aims:

Introduction of concepts and methods of modern econometric analysis. The main focus is put on formulation of regression models in terms of covering relationship of interdependence of economic phenomena and knowledge in the field of evaluation, testing and interpretation of econometric models of various types.

Learning Outcomes:

Students will have a functional knowledge of regression methods, conditions of applicability, and their main advantages and disadvantages.

Students will be able to define and apply appropriate models to the specific type of problem.

Syllabus:

Theory

The basics of econometrics. The Simple Linear Regression Model; The Multiple Linear Regression Model; Onedimensional regression. Multidimensional regression (Estimation, Inference). Multiple Regression Analysis with Qualitative Information. Assessing Regression Models (Heteroscedasticity. Serial correlation).

Practice

Tasks and problems are solved, practical lessons follow the teaching content i.e. theoretical instructions. Usage of statistical software (SPSS and R)

Required Reading:

- 1. G. S. Maddala, Introduction to Econometrics, 3rd edition, Wiley, 2001
- 2. J. Kmenta, Počela ekonometrije, drugo izdanje, MATE d.o.o., Zagreb, 1997
- 3. C. Dougherty, Introduction to Econometrics, Oxford University Press, 1992

Weekly Contact Hours: 5 Lectures: 3 Practical work: 2

Teaching Methods:

Lectures, exercises, analysis of examples with applications, writing reports

Knowledge Assessment (maximum of 100 points):

Pre-exam obligations	points	Final exam	points
Active class		written exam	
participation		written exam	
Practical work	20	oral exam	40

Preliminary exam(s)	2x20=40	•••••		
Seminar(s)				

The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.