|  |  |  |  |
| --- | --- | --- | --- |
| C:\Documents and Settings\PC735\Local Settings\Temporary Internet Files\Content.Word\Logo_Univerziteta stari.jpg | **UNIVERSITY OF BANJA LUKA**  **FACULTY OF ECONOMICS** | | EFBLlogo |
| **Academic doctoral studies** | |
| **Study program(s):** | **Economics**  **All modules** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Subject name** | **Research Methods in Economic Science** | | | |
| **Subject code** | **Status of subject** | **Semester** | **Number of classes per week** | **Number of ECTS credits** |
| 3O14FMIE | Compulsory | 1st | 60L + 45S | 10 |
| **Professor(s)** | According to the decision of the Scientific-Educational Council of the Faculty of Economics, University of Banja Luka | | | |

|  |  |
| --- | --- |
| **Prerequisites** | **Type of prerequisites** |
| No prerequisites. |  |
| **Subject goals:** | |
| Acquiring knowledge and skills about the methods and techniques of scientific research and their application. Preparation and presentation of scientific papers in scientific publications. Improving communication and teamwork with fellow researchers. Mastering the technology of a doctoral dissertation preparation. | |
| **Learning outcomes (gained knowledge):** | |
| Demonstrate a systematic understanding of the methodology of scientific research and master research methods and techniques. Demonstrate ability to carry out original scientific research and to present the results through the publication of scientific papers in leading journals. Demonstrate the ability of critical analysis, evaluation and synthesis of new and complex ideas. Become trained to work in research teams and improve communication with colleagues from the same field, throughout the scientific community and society in general. Become trained to present and promote results of scientific research. | |
| **Subject contents:** | |
| Research approaches, strategies and planning. Describing the problem of research. Formulating hypotheses. Review of the literature (searching publications) and the process of developing the theoretical part. Measuring the economic variables and their operationalization. Research methodology: quantitative, qualitative and mixed. The application of appropriate research methods in: defining the problem, reviewing the literature, defining the hypotheses, data collection, data processing, data analysis, hypotheses testing, conducting discussions and presenting conclusions. Technology of development of the doctoral dissertation. Technology of development of scientific papers. Presentation of scientific results. Communication with fellow researchers. Teamwork. | |
| **Teaching methods and learning activities:** | |
| Teaching is conducted through lectures, exercises, and study research work. Lectures include discussions that allow interactivity. As a specific aspect of teaching it is provided that doctoral students participate in research teams in projects conducted at the Faculty. Through pre-exam and seminar papers students should use and present certain scientific research methods in the analysis of some economic problems. During the teaching process the application of scientific research methods in leading economic journals will be presented. | |
| **Literature:** | |
| Singh, Y. K. (2006). *Fundamental of Research Methodology and Statistics*. New Delhi: New age international publishers.  Todorović, Z. and Todorović, I. (2014) *The Technology of Scientific Research*. Banja Luka: Faculty of Economics, University of Banja Luka.  Ketchen, D.J. (2004). *Research Methodology in Strategy and Management.* New York: Elsevier.  Blaug, M. (1992). *The Methodology of Economics: Or How Economists Explain. (2nd ed.)*. London: Cambridge University Press. | |
| **Types of assessment and grading:** | |
| Study research pre-exam paper and taking final oral exam. | |
| **Special remarks for the subject:** | |
| None. | |
| **Name of the professor who provided the information:** Zdravko Todorović, PhD, Full Professor | |

|  |  |  |  |
| --- | --- | --- | --- |
| C:\Documents and Settings\PC735\Local Settings\Temporary Internet Files\Content.Word\Logo_Univerziteta stari.jpg | **UNIVERSITY OF BANJA LUKA**  **FACULTY OF ECONOMICS** | | EFBLlogo |
| **Academic doctoral studies** | |
| **Study program(s):** | **Economics**  **All modules** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Subject name** | **Econometrics** | | | |
| **Subject code** | **Status of subject** | **Semester** | **Number of classes per week** | **Number of ECTS credits** |
| 3O14FEKO | Compulsory | 1st | 60L + 45S | 10 |
| **Professor(s)** | According to the decision of the Scientific-Educational Council of the Faculty of Economics, University of Banja Luka | | | |

|  |  |
| --- | --- |
| **Prerequisites** | **Type of prerequisites** |
| No prerequisites. |  |
| **Subject goals:** | |
| The goal of the subject is to familiarize candidates with key econometric methods and models that are devoted to the analysis of time series data and panel data. Theoretical basis of econometric models and their role in concrete economic researches are presented. Since the application of econometric models is basis of the modern methodology of reasoning in economics, this subject provides the necessary methodological knowledge to perform complex analysis in practice on the basis of empirical data, both in microeconomic and macroeconomic field. | |
| **Learning outcomes (gained knowledge):** | |
| Candidates adopt principles of econometric modeling of time series data and panel data. Through practical examples and the use of appropriate econometric software, candidates master the necessary knowledge for independent econometric researches. The acquired knowledge enable candidates for the application of modeling in the economy, banking, government agencies and institutions, and wherever argumentative reasoning is necessary on the basis of theoretical assumptions and empirical data. This knowledge includes: methodology of econometric modeling in order to quantify the economic interdependence in the comparative data (countries, companies, households, etc.), technique of working with the panels (more units of observation over time), models of binary and multiple choice, skills in working with modern computer programs in finding the evidence and presentation of results. | |
| **Subject contents:** | |
| Econometric analysis of time series data: basic concepts, ordinary and partial autocorrelation function, linear process, models of stationary time series, models for time series with unit roots, unit root tests, cointegration and equilibrium error correction model, practical modeling using Eviews software. Econometric analysis of panel data: models of fixed and random effects - specifications, assumptions and methods of assessment, testing of individual and time effects, statistical inference in violated assumptions of the static panel model, dynamic panel models, unit root and cointegration in panel, unit root tests and cointegration, practical modeling using *Stata* software. | |
| **Teaching methods and learning activities:** | |
| Classes consist of lectures and exercises. During lectures theoretical basis of econometric methods and models are addressed. Exercises are performed in the computer center using computer programs *Eviews* and *Stata*. | |
| **Literature:** | |
| Baltagi, B.H. (2008). *Econometric Analysis of Panel Data*. 4th edition John Wiley & Sons  Heij, C., P de Boer, P.H.Franses, T. Kloek and H.Kvan Dijk (2004). *Econometric Methods with Applications in Business and Economics*. Oxford University Press  Jovičić, M., Dragutinović, R. (2011). *Econometric Methods and Models*. CID. Faculty of Economics: Belgrade  Matyas, L. and Sevestre, P. (2008). *The Econometrics of Panel Data, Fundamentals and Recent Developments in Theory and Practice*. 3rd edition Springer Verlag  Mladenović Z. Nojković A. (2012) *Applied Time Series Analysis*. CID. Faculty of Economics, Belgrade  Tsay, R.S. (2010). *Analysis of Financial Time Series*. 3rd edition Wiley Finance | |
| **Types of assessment and grading:** | |
| Study research pre-exam paper and taking final oral exam. | |
| **Special remarks for the subject:** | |
| None. | |
| **Name of the professor who provided the information:** Željko Račić, PhD, Assistant Professor | |