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| 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** |

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| **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 | | | |

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| **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 | |