**SYLLABUS FOR THE COURSE: ADVANCED MACROECONOMETRICS – MASTER LEVEL**

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| **Basic data for the course** |
| **Academic unit:** | Faculty of Economics, University of Prishtina |
| **Title of the course:** | Advanced Macroeconometrics |
| **Level:** | Master |
| **Status of the course:** | Elective |
| **Year of studies:** | 2nd year, 3rd semester |
| **Number of hours per week:** | 2 hours lecture  |
| **ECTS credits:** | 4 |
| **Time/location:** |  |
| **Tutor:** | Ardiana Gashi |
| **Tutor’s contact details:** | ardiana.gashi@uni-pr.edu |
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| **Content of the course** | This course focuses on the practical uses of time-series econometrics in a macroeconomic context. The topics covered include autoregressive-moving average processes, non-stationary time series models, unit root tests, vector autoregression models, and cointegration analysis. |
| **Course’s objectives:** | The course has three specific objectives. The first is to equip students with skills in using time series data in their; to lay out the econometric theory of time series analysis, with an emphasis on recent developments and to provide students with skills in analyzing selected recent works in theoretical macroeconomic modeling with an emphasis on their empirical implications and analysis. The course is built so that for each topic the econometric tool is presented first, followed by the relevant empirical applications. |
| **The expected outcomes:** | By the end of this course, student will be able to:* Be functional in the theoretical and applied tools used by professional economists to analyze time series data.
* To execute and assess analysis of time series data in univariate and multivariate applied contexts.
* Be fluent in the statistical software Stata and, in particular, its time series applications.
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| **Activity** | **Weeks** | **Hours** | **Total** |
| Lectures | 15 | 2 | 30 |
| Seminars (theoretical and practical) |  |  |  |
| Case studies |  |  |  |
| Direct contact with tutor | 1 | 13 | 13 |
| Field research |  |  |  |
| Colloquiums | 1 | 8 | 8 |
| Homework |  |  |  |
| Individual study (at library or at home) | 2 | 15 | 30 |
| Final preparation for the exam | 2 | 5 | 10 |
| Evaluation | 3 | 3 | 9 |
| Projects, presentation etc. |  |  |  |
| **Total** |  |  | **100** |
| Teaching methods: | Students must attend 2 hours of lectures. During lectures and interactions students will present their work and also engage in discussions.  |
| **Assessment methods:** | Attendance/In-class Assignments 10%; Assignment 1: 20%;Empirical paper 20%; Final exam 50%. |
| **Literature** |
| **Basic literature:** | * Wooldridge, J. M. 2013. Introductory econometrics: A modern approach. 5th ed. Mason, OH: South-Western.
* Enders W. Applied Econometric Time Series. John Wiley & Sons, Inc., 1995 2. Mills, T.C. The Econometric
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| **Supplementary literature** | Levendis, J., 2019, Time Series Econometrics: Learning Through Replication. (Springer Texts in Business and Economics.Enders W. Applied Econometric Time Series. John Wiley & Sons, Inc., 1995 2. Mills, T.C. The Econometric Modelling of Financial Time Series. Cambridge University Press, 1999 3. Andrew C. Harvey. Time Series Models. Harvester wheatsheaf, 1993 |
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| **The detailed plan of work:** |  |
| **Week** |  | **Topic** |
| ***Week 1*** |  | Introduction: Time series data |
| ***Week 2*** |  | Stochastic process and its main characteristics |
| ***Week 3*** |  | Autoregressive-moving average models ARMA |
| ***Week 4*** |  | Coefficient estimation in ARMA |
| ***Week 5*** |  | Forecasting in the framework of Box-Jenkins model |
| ***Week 6*** |  | Assignment 1 |
| ***Week 7*** |  | Non-stationary time series |
| ***Week 8*** |  | The unit root problem |
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| ***Week 9*** |  | The unit root problem |
| ***Week 10*** |  | Unit root and structure changes |
| ***Week 11*** |  | Regressive dynamic models |
| ***Week 12*** |  | Vector autoregression model and co-integration |
| ***Week 13*** |  | Vector autoregression model and co-integration |
| ***Week 14*** |  | Causality in time series |
| ***Week 15*** |  | Summary |



**Academic policies and code of conduct:**

As per the policies and code of conduct of the University of Prishtina, the following are not allowed and penalties apply: Cheating on examinations; Plagiarism; Misrepresentation or falsification of data of an examination; Unauthorized communication during examinations; Knowingly allowing another student to represent your work as his or her own; Forgery, alteration, or knowing misuse of graded examinations, quizzes, grade lists, or official records of documents; Theft or destruction of examinations or papers; Submitting the same work in more than one course; Altering or destroying another student’s work or records, Attempting improperly to influence the award of any credit, grade, or honor; Violation of the rules governing teamwork; Failure to comply with the sanctions imposed under the authority of this code.