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| **Prowadzący** | Anna Tatarczak |
| **Oferta PJO\*** | TAK / NIE\*\* |
| **Oferta PJOE\*** | TAK / NIE\*\* |
| **Kierunek, rok, stopień dla PJO** |  |
| **Semestr roku 2022/2023** | zimowy / letni\*\* |

\* PJO – przedmiot w języku obcym dla studentów polskich / PJOE – przedmiot w języku obcym dla studentów Erasmus+
\*\* zostawić właściwe

BASIC INFORMATION ABOUT THE SUBJECT (INDEPENDENT OF THE CYCLE)

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| **Module name** | **Econometrics and forecasting** |
| **Erasmus code** |  |
| **ISCED code** |  |
| **Language of instruction** |  |
| **Website** |  |
| **Prerequisites** | Requirements in the area of:- knowledge: shows acquaintance of problems and methods of algebra, mathematical analysis, descriptive statistics, probability theory, mathematical statistics and basics of macroeconomics, microeconomics and finance- skills: can perform basic mathematical operations, calculate chosen statistical measures- competences (attitude): can individually use bibliography as well as prepare information on a selected topic |
| **ECTS points hour equivalents** | Contact hours (work with an academic teacher)Total number of hours with an academic teacher: **30h**Number of ECTS points with an academic teacher: 1ECTSNon-contact hours (students' own work)Total number of non-contact hours: 125h Number of ECTS points for non-contact hours: 5 ECTSTotal number of ECTS points for the module: **6 ECTS**  |
| **Educational outcomes verification methods** | Essay, paper, classroom activities, classroom discussion. |
| **Description** | The module introduces students to regression methods for analyzing data in economics and related disciplines. The objective of the course is for the student to learn how to conduct – and how to critique – empirical studies in economics and related fields. Accordingly, the emphasis of the course is on empirical applications.  |
| **Reading list** | Any good book in econometrics should be useful. Our main reference will be1. Stock, James H., and Mark W. Watson. *Introduction to econometrics*. Vol. 104. Boston: Addison Wesley, 2003.
2. Heij, C., De Boer, P., Franses, P. H., Kloek, T., & Van Dijk, H. K. (2004). *Econometric methods with applications in business and economics*. OUP Oxford.
3. Hill, R. Carter, William E. Griffiths, and Guay C. Lim, *Principles of Econometrics, Second Edition,* Hoboken, NJ:John Wiley and Sons, 2007.
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| **Educational outcomes** | **KNOWLEDGE*** Basic knowledge of the concepts of statistical inference, hypothesis testing and confidence intervals.
* Elementary knowledge of the estimation frameworks in econometrics, time series regressions, diagnostic checking, model selection and specification testing gained while studying both the econometrics itself as well as its applications in economics/finance.

**SKILLS*** Specification, estimation and verification of simple but well established models in economics. and/or finance, use these models for prediction and economic policy evaluation purposes.
* Selects the optimal set of explanatory variables in the single-equation econometric model.
* Ability to work with real data.
* Ability to analyze and summarize the results from an empirical analysis.

**ATTITUDES*** Ability to present the results of an empirical analysis.
* Students strengthen their ability to communicate with the public during classroom activities and discussion.

Students know the limitations of simple and multiple regression models and the consequences of violation of the underlying them assumptions and do not go beyond these bounds in the applied research. |
| **Practice** | n/a |

INFORMATION ABOUT CLASSES IN THE CYCLE

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| **Website** |  |
| **Educational outcomes verification methods** | Essay, paper, classroom activities, classroom discussion. |
| **Comments** |  |
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| **A list of topics** | Course Content:1. The nature of Econometrics and economic data.
2. Covariance, variance, and correlation.
3. Simple regression analysis.
4. Properties of the regression coefficients and hypothesis testing.
5. Regression analysis with time series data.
6. Multiple regression analysis.

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| **Teaching methods** | Lectures including multimodal presentations, Case studies, Work in computer laboratoriesEconometrics is learned through reading the book, hearing the lectures, and doing the homework. If a student is not doing the reading, then he is more likely to have more difficulty following and comprehending the lectures. |
| **Assessment methods** | 1. **General requirements:** Students are requested to complete required readings and prepare for lectures before attending. Three hours of outside self-study is recommended for each hour of class and counseling time.
2. **Lecture attendance:** Students have to arrive on time to class, stay the entirety of the class and keep absences to a minimum. I expect to be informed beforehand if you need to miss a class. To encourage this policy, a student who is not present in class more than one time will not be grade for course based on “collection of the points” but based on final exam.
3. **Counseling:** Individual or small group volunteer access to the lecture. It is the responsibility of the student to seek help and ask questions when concepts presented in lecture or the textbook are not clear. However, if the student encounters the decline in scores, a counseling meeting may be initiated by the lecturer.
4. **Exams:** A series of short exercises are required to make up the total course grade – only for the students who attended the classes (one absence is acceptable). These exercises would be available for students during the whole course: lecture and e-learning module. Student collects the points which will be given for solving exercises, and at the end of course an appropriate grade would be given. Grades for course are setup according to the following scale:

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| **Points** | **Grade** |
| Below 50 | 2.0 / F (Fail) |
| 50 - 60  | 3.0 / E (Sufficient) |
| 61 - 70 | 3.5 / D (Satisfactory) |
| 71 - 80 | 4.0 / C (Good) |
| 81 - 90 | * 1. / B (Very good)
 |
| 91 - 100 | 5/ A (Excellent) |

Students who fail to collect a sufficient number of points or for those who has more than one absence, can attempt one time to pass that exam (counseling meetings), however there will be no “makeup” of exams if students receive grade 3.0 / E (Sufficient) or higher. Cheating is not acceptable in any form. Any evidence of cheating in exams will lead to annulling the grade and disciplinary procedure. Exams may include material from all reading assignments, all lectures, and all assignments. Grades for exam are setup according to the following scale:

|  |  |
| --- | --- |
| **%** | **Grade** |
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