



Subject card

| | | | | | | | |
|---|--|---|-------------------------------------|------------|--|---------|-----|
| Subject name and code | QUANTITATIVE METHODS IN THE INTERNATIONAL ECONOMY, PG_00067172 | | | | | | |
| Field of study | Economics | | | | | | |
| Date of commencement of studies | October 2023 | Academic year of realisation of subject | | | 2024/2025 | | |
| Education level | first-cycle studies | Subject group | | | Optional subject group Subject group related to scientific research in the field of study | | |
| Mode of study | Full-time studies | Mode of delivery | | | at the university | | |
| Year of study | 2 | Language of instruction | | | Polish | | |
| Semester of study | 4 | ECTS credits | | | 2.0 | | |
| Learning profile | general academic profile | Assessment form | | | assessment | | |
| Conducting unit | Department of Statistics and Econometrics -> Faculty of Management and Economics | | | | | | |
| Name and surname of lecturer (lecturers) | Subject supervisor | dr Aleksandra Kordalska | | | | | |
| | Teachers | dr Aleksandra Kordalska | | | | | |
| Lesson types and methods of instruction | Lesson type | Lecture | Tutorial | Laboratory | Project | Seminar | SUM |
| | Number of study hours | 0.0 | 30.0 | 0.0 | 0.0 | 0.0 | 30 |
| | E-learning hours included: 0.0 | | | | | | |
| Learning activity and number of study hours | Learning activity | Participation in didactic classes included in study plan | Participation in consultation hours | | Self-study | | SUM |
| | Number of study hours | 30 | 5.0 | | 15.0 | | 50 |
| Subject objectives | Describes the possibilities of quantitative methods application in terms of their selection and collecting reliable data | | | | | | |
| Learning outcomes | Course outcome | Subject outcome | | | Method of verification | | |
| | [K6_U06] acquires new knowledge by planning lifelong learning strategies. | acquires new knowledge necessary to conduct analyses in international economics | | | [SU3] Assessment of ability to use knowledge gained from the subject | | |
| | [K6_K03] exhibits critical and analytical thinking skills and integrates knowledge from multiple disciplines while acting in an entrepreneurial manner. | shows a critical approach to reliable data sources selection necessary to conduct analyses in international economics | | | [SK5] Assessment of ability to solve problems that arise in practice | | |
| Subject contents | Introduction to the course, quantitative versus qualitative approach to analyses in the field of international economics, examples of applications and the problem of choosing a research method Introduction to the software - the use of selected R packages with examples of applications in international economics Macroeconomic, sectoral, and microeconomic sources of data for international analyses and examples of their use Merging economic data that come from different sources Comparative advantages - revealed comparative advantages index Global value chains, value added in exports - methods of gross exports decomposition, measures of participation and position in GVCs Functional specialisation in international trade - a way of identification/measuring, headquarter and fabrication economies Creating a database with two-level (country-year) and multi-level (e.g. country-section-year) identification Calculation of macroeconomic and sectoral indicators Methods of an initial analysis of the created databases (descriptive statistics, graphical methods of presenting multidimensional data, outliers) Preliminary examination of the relationship between data, selection of variables for analysis: exo- and endogenous variables - illustration on the example of determinants of economic growth One- and multi-dimensional analyses on the example of the absolute and conditional convergence model Bilateral data and gravity model for international trade Network analyses Preparing of the project | | | | | | |
| Prerequisites and co-requisites | macroeconomics, microeconomics, statistics, econometrics | | | | | | |

| Assessment methods and criteria | Subject passing criteria | Passing threshold | Percentage of the final grade |
|--|---|--|-------------------------------|
| | | project | 60.0% |
| Recommended reading | Basic literature | Krugman, P., Obstfeld, M., Melitz, M.J. (2018). <i>Ekonomia międzynarodowa</i> , tom 1 i 2, Warszawa: Wydawnictwo Naukowe PWN. Maddala, G.S. (2006). <i>Ekonometria</i> . Warszawa: Wydawnictwo Naukowe PWN. Biecek, P. (2015). <i>Analiza danych z programem R</i> . Warszawa: Wydawnictwo Naukowe PWN. | |
| | Supplementary literature | Feenstra, R.C., Taylor, A.M. (2020). <i>International Economics</i> , Worth Publishers. Maddala, G.S, Lahiri, K. (2011). <i>Introduction to Econometrics</i> , Wiley. | |
| | eResources addresses | Adresy na platformie eNauczanie: | |
| Example issues/ example questions/ tasks being completed | <p>Given the data on GDP per capita and trade openness (100 countries, 1980-2010) calculate average annual rate of growth of each of the analysed countries in the period 1980-2010 and verify the hypothesis of conditional beta convergence.</p> <p>On the basis of gross exports decomposition (Wang, Wei, and Zhu, 2013) answer the question of the size of domestic and foreign value-added embodied in gross exports for 28 EU countries in the period 2005-2018.</p> | | |
| Work placement | Not applicable | | |

Document generated electronically. Does not require a seal or signature.