



## Subject card

|   |   |  |   |                                     |  |            |     |
|---|---|--|---|-------------------------------------|--|------------|-----|
| Subject name and code                       | INSURANCE STATISTICS, PG_00060695   |  |   |                                     |  |            |     |
| Field of study                              | Economic Analytics  |  |   |                                     |  |            |     |
| Date of commencement of studies             | October 2023  |  | Academic year of realisation of subject   |                                     | 2023/2024  |            |     |
| Education level                             | second-cycle studies  |  | Subject group   |                                     | Obligatory subject group in the field of study<br>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                               | 1   |  | Language of instruction   |                                     | Polish   |            |     |
| Semester of study                           | 2   |  | ECTS credits  |                                     | 4.0  |            |     |
| 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 Mariusz Kaszubowski  |                                     |  |            |     |
|   | Teachers  |  | dr Mariusz Kaszubowski  |                                     |  |            |     |
| Lesson types and methods of instruction     | Lesson type   | Lecture  | Tutorial  | Laboratory                          | Project  | Seminar    | SUM |
|   | Number of study hours   | 15.0   | 0.0   | 30.0                                | 0.0  | 0.0        | 45  |
|   | 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   | 45   |   | 5.0                                 |  | 50.0       | 100 |
| Subject objectives                          | Explains the functioning of the insurance market by analyzing various insurance products, presenting and convincingly interpreting the results obtained   |  |   |                                     |  |            |     |
| Learning outcomes                           | Course outcome  |  | Subject outcome   |                                     | Method of verification   |            |     |
|   | [K7_W06] identifies reliable sources of information relevant to the analyzed issues   |  | identifies reliable sources of information needed to analyze the insurance market by analyzing various risks using statistical tools and methods  |                                     | [SW1] Assessment of factual knowledge  |            |     |
|   | [K7_U04] prepares and presents convincing, professional presentations of analysis results, with their in-depth interpretation   |  | analyzes insurance products based on historical and demographic data and presents the results in a convincing way along with professional interpretation  |                                     | [SU3] Assessment of ability to use knowledge gained from the subject   |            |     |
| Subject contents                            | Elements of the calculus of probability especially used in insurance (conditional probability, total probability, Bayesian formula)<br>Probability distributions used in insurance risk assessment<br>Testing the fit of theoretical insurance risk distributions based on historical data<br>Calculation of net premiums in various insurance variants<br>Gross premium calculation<br>Life expectancy tables, their construction and application<br>Commutation functions and their application in the calculation of insurance premiums<br>Analysis of life insurance markets in Poland and in the world |  |   |                                     |  |            |     |
| Prerequisites and co-requisites             |   |  |   |                                     |  |            |     |
| Assessment methods and criteria             | Subject passing criteria  |  | Passing threshold   |                                     | Percentage of the final grade  |            |     |
|   | Test  |  | 60.0%   |                                     | 100.0%   |            |     |
| Recommended reading                         | Basic literature  |  | Ubezpieczenia na życie. Teoria i praktyka, Eugeniusz Stroiński, Wydawnictwo Poltext z serii Ubezpieczenia, Warszawa 2004<br>Nowe zasady ubezpieczeń majątkowych i osobowych. Poradnik, T. Jakubowski, Warszawa 1991 |                                     |  |            |     |

|  |   |   |
|--|---|---|
|  | Supplementary literature  | Podstawy ubezpieczeń, tom II produkty, pod redakcją Jana Monkiewicza, Wydawnictwo Poltext, seria: Ubezpieczenia, Warszawa 2005 (wydanie I - 2001)   |
|  | eResources addresses  | Adresy na platformie eNauczanie:<br>Statystyka ubezpieczeniowa Analityka gospodarcza (WZiE), II stopnia, stacjonarne, 2023/2024 - zimowy (obecnie sem. 2) - Moodle ID: 37963<br><a href="https://enauczanie.pg.edu.pl/moodle/course/view.php?id=37963">https://enauczanie.pg.edu.pl/moodle/course/view.php?id=37963</a> |
| Example issues/<br>example questions/<br>tasks being completed | Problems in the theory of probability (using e.g. the Bayes formula)<br>Calculation of the net premium in various variants<br>Calculation of the net premium for various insurances<br>Application of commutation functions<br>Theoretical questions about the functioning of the insurance market in Poland and in the world |   |
| Work placement   | Not applicable  |   |

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