GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

| | | | |
|---|---|---|---|
| Subject name and code | ECONOMIC FORECASTING, PG_00058464 | | |
| Field of study | Economics | | |
| Date of commencement of studies | October 2024 | Academic year of realisation of subject | 2026/2027 |
| Education level | first-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 | 3 | Language of instruction | Polish |
| Semester of study | 5 | ECTS credits | 4.0 |
| Learning profile | general academic profile | Assessment form | exam |
| Conducting unit | Department of Statistics and Econometrics -> Faculty of Management and Economics -> Faculties of Gdańsk University of Technology | | |
| Name and surname of lecturer (lecturers) | Subject supervisor | dr Aneta Sobiechowska | |
| | Teachers | dr Aneta Sobiechowska | |

**Lesson types**

| Lesson type | Lecture | Tutorial | Laboratory | Project | Seminar | SUM |
|---|---|---|---|---|---|---|
| Number of study hours | 15.0 | 30.0 | 0.0 | 0.0 | 0.0 | 45 |

E-learning hours included: 0.0

eNauczanie source addresses:

Moodle ID: 6743 Prognozowanie Gospodarcze 2026
https://enauczanie.pg.edu.pl/2025/course/view.php?id=6743

**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 | 10.0 | 45.0 | 100 |

**Subject objectives**

Distinguishes between the quality and accuracy measures of forecasts, being aware of the usefulness of expired forecasts verification measures to formulate recommendations for the use of specific forecasting methods, also taking into account the threats arising from demographic trends, technology development and the globalization of the economy

**Learning outcomes**

| Course outcome | Subject outcome | Method of verification |
|---|---|---|
| [K6_W05] integrates data from multiple sources to analyze complex economic problems. | forecasts economic phenomena at the micro and macroeconomic level, integrating data from many sources | [SW3] Assessment of knowledge contained in written work and projects |
| [K6_U07] applies information technology to improve data analysis and decision-making processes. | selects the appropriate forecasting method based on the course of the phenomenon over time, supporting analyses and inference with appropriately selected software | [SU5] Assessment of ability to present the results of task<br>[SU4] Assessment of ability to use methods and tools<br>[SU2] Assessment of ability to analyse information<br>[SU1] Assessment of task fulfilment |

<table>
<tr><td>Subject contents</td><td>Course content – lecture<br><br>Basic concepts and issues related to forecasting.<br>Types of forecasts, methods and variables.<br>Measurement of the quality of forecasts.<br>Naive and adaptive methods of forecasting - introduction.<br>Simple and weighted moving averages.<br>Exponential smoothing - Brown, Holt and Winters model.<br>Forecasting based on linear and nonlinear trends.<br>Forecasting based on autoregressive models.<br>Heuristic methods and analog forecasting.<br>Scenarios and warning forecasts.<br>Mega trends - forecasts for the world and Poland.<br>Forecasting selected elements of the macro-environment of the enterprise.<br>Forecasting selected elements of the micro-environment of the enterprise.<br>Forecasting variables in the enterprise.</td></tr>
<tr><td>Prerequisites and co-requisites</td><td>microeconomics<br>basic statistics<br>macroeconomics<br>statistics<br>econometrics</td></tr>
<tr><td>Assessment methods and criteria</td><td><table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>test</td><td>60.0%</td><td>50.0%</td></tr>
<tr><td>academic webquest</td><td>60.0%</td><td>50.0%</td></tr>
</table></td></tr>
<tr><td>Recommended reading</td><td><table>
<tr><td>Basic literature</td><td>Cieślak, M. (2022). Prognozowanie gospodarcze metody i zastosowania. Warszawa: PWN.<br>Dittmann, P.(2008). Prognozowanie w przedsiębiorstwie metody i ich zastosowania. Kraków: Wolters Kluwer.<br>Dittmann, P, Szabela-Pasierbińska, E., Dittmann, I., Szpulak, A. (2017). Prognozowanie w zarządzaniu przedsiębiorstwem. Warszawa: Wydawnictwo Nieoczywiste<br>Zeliaś, A., Pawełek, B., Wanat S. (2003). Prognozowanie ekonomiczne, teoria, przykłady, zadania. Warszawa; PWN.</td></tr>
<tr><td>Supplementary literature</td><td>Bukowski, M., Śniegowski, A., (2017). Megatrendy. Od akceptacji do działań. Warszawa: WiseEuropa-Fundacja Warszawski Instytut Studiów Ekonomicznych i Europejskich.<br>Krys, Ch., Born, D.(2020). Trend Compendium 2050 Six megatrends that will shape the world. Munich: Roland Berger.<br>Future State 2030. Światowe wyzwania dla liderów i przywódców (2014), KPMG International, MOWAT.</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
</table></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td>Based on data from stat.gov.pl / macroeconomic indicators for the selected economic variable.<br><br>• Make a graph of the analyzed variable and determine the nature of its changes in the analysed period.<br>• Forecast this variable for the next period using an appropriate adaptive method and a trend or trend model with seasonality.<br>• Assess the usefulness of the selected method on the basis of the ex-ante and ex-post quality measures.<br>• Interpret the obtained results.</td></tr>
<tr><td>Practical activites within the subject</td><td>Not applicable</td></tr>
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