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| **Prowadzący** | dr Grzegorz Kwiatkowski |
| **Oferta PJO\*** | NIE |
| **Oferta PJOE\*** | TAK |
| **Kierunek, rok, stopień dla PJO (\*obowiązkowe)** |  |
| **Semestr roku 2024/2025** | 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** | **Artificial Intelligence for Economists** |
| **Erasmus code** |  |
| **ISCED code** |  |
| **Language of instruction** | English |
| **Website** | [https://www.umcs.pl/en/courses-in-english-2021-2022,21582.htm](https://www.umcs.pl/en/courses-in-english-2021-2022%2C21582.htm)  |
| **Prerequisites** | This course is designed for students with an interest in economics and does not require prior technical knowledge in artificial intelligence or computer science. It emphasizes the interdisciplinary nature of AI and its potential to transform economic research, policy-making, and business practices. |
| **ECTS points hour equivalents** | Contact hours (work with an academic teacher): 30Total number of hours with an academic teacher: 30Number of ECTS points with an academic teacher: 2Non-contact hours (students' own work): 60Total number of non-contact hours: 60Number of ECTS points for non-contact hours: 4Total number of ECTS points for the module: 6 |
| **Educational outcomes verification methods** | Class activity assessment – 50%Projects – 50%Grading scale:<90%, 100%> 5<80%, 90%) 4,5<70%, 80%) 4<60%, 70%) 3,5<50%, 60%) 3 |
| **Description** | This course introduces students to Artificial Intelligence (AI), focusing on its use for personal learning and economic analysis, as well as implications and significance of AI adoption in various economic sectors. It aims to equip students with the understanding of AI's role in enhancing efficiency, innovation, and economic growth, as well as the ethical considerations surrounding its adoption. |
| **Reading list** | 1. E. Mollick, *Co-Intelligence: Living and Working with AI,* 2024
2. *Elements of Al*, elementsofai.com
3. T*he Ethics of AI*, ethics-of-ai.mooc.fi
4. B. Christian, T*he Alignment Problem*, 2020
5. M. Mitchell, *Artificial Intelligence*, 2019
6. K-F. Lee, Ch. Qiufan, *AI 2041*, 2021
7. N. Bostrom, *Superintelligence: Paths, Dangers, Strategies,* 2016
 |
| **Educational outcomes** | KNOWLEDGE1. Understanding the basic concepts of artificial intelligence, including machine learning, deep learning, and pattern recognition.
2. Knowledge of the economic implications of the adoption of artificial intelligence in various sectors.
3. Ethical arguments related to the implementation of artificial intelligence.
4. Knowledge of various AI tools.

SKILLS1. Applying AI knowledge and skills to economic analysis.
2. Prompting and customizing AI models for specific economic tasks.
3. Use AI tools and frameworks to collect and analyze data.

ATTITUDES1. Recognize the transformative potential of AI in the economy, while being mindful of social and ethical implications.
2. Using AI for personal learning.
3. Critical approach towards AI-generated content.
4. Leveraging the capabilities and advantages of the human intelligence in collaboration with AI.
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| **Practice** | n/a |

INFORMATION ABOUT CLASSES IN THE CYCLE

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| **Website** | [https://www.umcs.pl/en/courses-in-english,21103.htm](https://www.umcs.pl/en/courses-in-english%2C21103.htm) (dla PJOE) |
| **Educational outcomes verification methods** | Class activity assessment – 50%Projects – 50%Grading scale:<90%, 100%> 5<80%, 90%) 4,5<70%, 80%) 4<60%, 70%) 3,5<50%, 60%) 3 |
| **Comments** | This course is designed for students with an interest in economics and does not require prior technical knowledge in artificial intelligence or computer science. It emphasizes the interdisciplinary nature of AI and its potential to transform economic research, policy-making, and business practices. |
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| **A list of topics** | 1. Introduction to AI: definitions and history
2. Basics of large language models (LLMs) and their economic applications
3. AI literacy for economists: tools and techniques
4. Ethical considerations in AI: privacy, biases, and governance
5. Practical AI: prompt engineering and custom AI models for economic analysis
6. AI in Action: case studies in finance, healthcare, and education
7. The future of work: automation, employment, and economic policy
8. Use of AI for personal learning
9. Group projects: developing AI solutions for economic problems
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| **Teaching methods** | Lecture, discussion, case study, project method |
| **Assessment methods** | Class activity assessment – 50%Projects – 50% |