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| **Prowadzący** | Marek Szponar |
| **Oferta PJO\*** |  |
| **Oferta PJOE\*** |  |
| **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** | Data Analysis based on airline industry case study. |
| **Erasmus code** |  |
| **ISCED code** |  |
| **Language of instruction** | English |
| **Website** | [https://www.umcs.pl/en/courses-in-english,21103.htm](https://www.umcs.pl/en/courses-in-english%2C21103.htm) (dla PJOE) |
| **Prerequisites** |  |
| **ECTS points hour equivalents** | Contact hours (work with an academic teacher): Total number of hours with an academic teacher: Number of ECTS points with an academic teacher: Non-contact hours (students' own work): Total number of non-contact hours: Number of ECTS points for non-contact hours: Total number of ECTS points for the module:  |
| **Educational outcomes verification methods** | Exam  |
| **Description** | Introduction into the concepts of data analysis, the role of a Data Analyst, and the tools that are used to perform daily functions.  |
| **Reading list** | 1. “How to Measure Anything: Finding the Value of Intangibles in Business” by Douglas W. Hubbard
2. Storytelling With Data: A Data Visualization Guide for Business Professionals by Cole Nussbaumer Knaflic
3. Part 1 - Star Schema the Complete Reference by Christopher Adamson
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| **Educational outcomes** | KNOWLEDGE* Understanding terms and concept used in data analysis
* Tools used for data analysis
* Data visualization standards

SKILLS* Ability to define problem, collect and transform required information to start analysis
* Ability to draw conclusions from data
* Ability to present conclusions to stakeholders

ATTITUDES* Analytical attitude, develop conclusions based on facts
* Curious attitude- Data analyst needs to gain knowledge regarding each business
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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** | Exam  |
| **Comments** |  |
| **Reading list** |  |
| **Educational outcomes** |  |
| **A list of topics** | 1. Introduction to data analysis
2. Important terms in Data Analysis
	* Measure, Context, KPI, Data Sources
3. Data Analysis Types : Descriptive, Diagnostic, Predictive, Prescriptive
4. Data flow in your organization
5. Tools used for data analysis
6. Define problem, define business process to measure and value
7. Data gathering and prepartion of data
8. Business case: Operations Efficiency
9. Business case: Revenue optimization
10. Exam
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| **Teaching methods** | Lecture |
| **Assessment methods** | Exam |