# GDAŃSK UNIVERSITY OF TECHNOLOGY

## Subject card

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| Subject name and code | COMPUTER SCIENCE IN MANAGEMENT, PG_00061446 |
| Field of study | Engineering Management |

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| Date of commencement of studies | October 2023 | Academic year of realisation of subject | 2023/2024 |
| Education level | first-cycle studies | Subject group | Obligatory subject group in the field of study |
| | | | Subject group related to scientific research in the field of study |
| Mode of study | Part-time studies (on-line) | Mode of delivery | blended-learning |
| Year of study | 1 | Language of instruction | Polish |
| Semester of study | 2 | ECTS credits | 4.0 |
| Learning profile | general academic profile | Assessment form | assessment |

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| Conducting unit | Department Of Informatics In Management -> Faculty Of Management And Economics -> Wydziały Politechniki Gdańskiej |
| Name and surname of lecturer (lecturers) | Subject supervisor — dr inż. Anna Trzaskowska |
| | Teachers — dr inż. Anna Trzaskowska |

| Lesson types and methods of instruction | Lesson type | Lecture | Tutorial | Laboratory | Project | Seminar | SUM |
|---|---|---|---|---|---|---|---|
| | Number of study hours | 0.0 | 0.0 | 24.0 | 0.0 | 0.0 | 24 |
| | E-learning hours included: 20.0 | | | | | | |

| 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 | 24 | 3.0 | 73.0 | 100 |

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| Subject objectives | Business data analysis and visualization - identifying sources of reliable data, analyzing and visualizing them, and using the results to evaluate and support management processes. |

| Learning outcomes | Course outcome | Subject outcome | Method of verification |
|---|---|---|---|
| | [K6_U07] applies information technology to improve critical analysis and evaluation of data and management processes | Uses known methods and tools to critically analyze and evaluate management processes. Presents the results of his work. | [SU1] Assessment of task fulfilment<br>[SU2] Assessment of ability to analyse information<br>[SU3] Assessment of ability to use knowledge gained from the subject<br>[SU4] Assessment of ability to use methods and tools<br>[SU5] Assessment of ability to present the results of task |
| | [K6_W03] identifies reliable sources of information relevant to the analyzed issues | Analyzes data and information from various sources. | [SW1] Assessment of factual knowledge<br>[SW2] Assessment of knowledge contained in presentation<br>[SW3] Assessment of knowledge contained in written work and projects |

| Subject contents | |
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| | Data acquisition. |
| | Excel Power Query and Power BI as a tool for data analysis and visualization. |
| | Gaining a competitive advantage through the use of methods business analytics. |
| Prerequisites and co-requisites | |

| Assessment methods and criteria | Subject passing criteria | Passing threshold | Percentage of the final grade |
|---|---|---|---|
| | practical exercises | 60.0% | 50.0% |
| | mini project | 60.0% | 50.0% |

| Recommended reading | Basic literature | |
|---|---|---|
| | | Radziszewski P., Business Intelligence, Poltex, Warszawa, 2016 |
| | | Surma J., Business Intelligence, PWN, Warszawa, 2018 |
| | | Surma J, Cyfryzacja życia w erze Big Data, PWN, Warszawa, 2017 |
| | Supplementary literature | Own materials for laboratories |
| | eResources addresses | Adresy na platformie eNauczanie: Informatyka w Zarządzaniu - NSTAC online - 2023/2024 - Moodle ID: 36384 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=36384 |

| Example issues/ example questions/ tasks being completed | |
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| | Introduction to Power BI. |
| | Data import. |
| | Working with data in Power Query. |
| | Creating relations. |
| | Reports. |
| | DAX functions. |

| Work placement | Not applicable |
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