



Subject card

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| Subject name and code | Spreadsheets, PG_00044129 | | | | | | |
| Field of study | Mathematics | | | | | | |
| Date of commencement of studies | October 2025 | | Academic year of realisation of subject | | 2026/2027 | | |
| Education level | first-cycle studies | | Subject group | | Optional subject group 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 | 2 | | Language of instruction | | Polish | | |
| Semester of study | 4 | | ECTS credits | | 4.0 | | |
| Learning profile | general academic profile | | Assessment form | | assessment | | |
| Conducting unit | Faculty Of Applied Physics And Mathematics -> Wydziały Politechniki Gdańskiej | | | | | | |
| Name and surname of lecturer (lecturers) | Subject supervisor | | dr inż. Magda Dettlaff | | | | |
| | Teachers | | | | | | |
| Lesson types and methods of instruction | Lesson type | Lecture | Tutorial | Laboratory | Project | Seminar | SUM |
| | Number of study hours | 30.0 | 0.0 | 15.0 | 15.0 | 0.0 | 60 |
| | E-learning hours included: 0.0 | | | | | | |
| | Adresy na platformie eNauczanie: | | | | | | |
| 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 | 60 | | 5.0 | | 35.0 | 100 |
| Subject objectives | In the course, students will learn (theoretically and practically) about advanced functions of spreadsheets (Excel 2016) with particular emphasis on the VBA language. | | | | | | |
| Learning outcomes | Course outcome | | Subject outcome | | Method of verification | | |
| | K6_U10 | | The student can use advanced functions in Excel and program in VBA (Visual Basic for Applications). | | [SU4] Assessment of ability to use methods and tools [SU1] Assessment of task fulfilment | | |
| | K6_W08 | | The student uses advanced tools available in Excel. Can use VBA to analyze data. | | [SW1] Assessment of factual knowledge | | |
| | K6_U12 | | The student analyzes the data using statistical functions available in Excel. | | [SU4] Assessment of ability to use methods and tools [SU1] Assessment of task fulfilment | | |
| Subject contents | Spreadsheet History. Data types and cell formatting. Data visualization (conditional formatting, sorting, subtotals, charts). Pivot tables and charts. Data analysis in a spreadsheet (including mathematical and statistical functions). Macros. Cooperation with databases. | | | | | | |
| Prerequisites and co-requisites | Knowledge of the basics of Excel from the subject of Information Technologies. | | | | | | |
| Assessment methods and criteria | Subject passing criteria | | Passing threshold | | Percentage of the final grade | | |
| | test (theory) | | 45.0% | | 25.0% | | |
| | laboratory | | 45.0% | | 40.0% | | |
| | project | | 45.0% | | 35.0% | | |
| Recommended reading | Basic literature | | John Walkenbach, Excel 2016 PL. Biblia, Helion, Gliwice 2016 | | | | |
| | | | Michael Alexander, Richard Kusleika, Excel 2016 PL. Programowanie w VBA. Vademecum Walkenbacha, Helion, Gliwice 2017 | | | | |
| | Supplementary literature | | Piotr Walędziak, Excel. Nauka na przykładach, 2018 | | | | |
| | eResources addresses | | | | | | |

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| Example issues/ example questions/ tasks being completed | Sort the table in multiple levels. Use conditional formatting to highlight certain table elements. Draw and format a chart. |
| Work placement | Not applicable |

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