



Subject card

| | | | | | | | |
|---|---|--|------------------------|-------------------------------------|--|------------|-----|
| Subject name and code | Engineering project, PG_00062750 | | | | | | |
| Field of study | Technologies for Industry 5.0 | | | | | | |
| Date of commencement of studies | October 2024 | Academic year of realisation of subject | | | 2027/2028 | | |
| 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 | 4 | Language of instruction | | | Polish | | |
| Semester of study | 7 | ECTS credits | | | 10.0 | | |
| Learning profile | general academic profile | Assessment form | | | assessment | | |
| Conducting unit | Katedra Fizyki Atomowej, Molekularnej i Optycznej -> Faculty of Applied Physics and Mathematics | | | | | | |
| Name and surname of lecturer (lecturers) | Subject supervisor | | dr hab. inż. Jacek Ryl | | | | |
| | Teachers | | | | | | |
| Lesson types and methods of instruction | Lesson type | Lecture | Tutorial | Laboratory | Project | Seminar | SUM |
| | Number of study hours | 0.0 | 0.0 | 0.0 | 120.0 | 0.0 | 120 |
| | E-learning hours included: 0.0 | | | | | | |
| 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 | 120 | | 10.0 | | 120.0 | 250 |
| Subject objectives | The aim of the course is to carry out research, analysis and interpretation of results, elements of a study for an engineering diploma. | | | | | | |

| | | | |
|--|---|---|--|
| Learning outcomes | Course outcome | Subject outcome | Method of verification |
| | [K6_K03] effectively, clearly and unambiguously conveys information, describes activities and communicates their results and opinions of a specialist engineer using appropriate communication methods and tools | The student is able to present a synthetic description of the implemented project, the results obtained, the possibilities of implementing the solution, advantages and limitations. | [SK5] Assessment of ability to solve problems that arise in practice [SK4] Assessment of communication skills, including language correctness |
| | [K6_K02] makes decisions independently, carries out a critical assessment of own actions and actions of managed teams, is ready to make decisions and accept responsibility for the consequences of these actions | The student acquires the ability to organize independent work, implement a project in the field of Industry 5.0 Technology and prepare a synthetic report from the conducted research/analysis. | [SK2] Assessment of progress of work [SK4] Assessment of communication skills, including language correctness [SK3] Assessment of ability to organize work |
| | [K6_K01] is aware of the need to constantly update and enrich knowledge and practical skills, and improve professional, personal and social competences | The student is aware of the continuous development of tools in the field of Industry 5.0 Technology and the need for continuous improvement | [SK5] Assessment of ability to solve problems that arise in practice [SK4] Assessment of communication skills, including language correctness |
| | [K6_U06] performs analysis, exploration and cleaning of data sets, can use statistical models and machine learning models, integrate various analytical, management and data storage tools | The student is able to use Industry 5.0 Technology tools, in particular selected data engineering tools, to solve practical problems. | [SU5] Assessment of ability to present the results of task [SU4] Assessment of ability to use methods and tools [SU3] Assessment of ability to use knowledge gained from the subject |
| [K6_U04] has the ability to perceive and take into account non-technical aspects (legal, economic, ethical, environmental, human factor and others) of engineering problems and tasks and create solutions that take them into account | The student is able to analyze the solution he has proposed in terms of non-technical aspects. | [SU2] Assessment of ability to analyse information | |
| Subject contents | The content of the course is individually selected for each student (depending on the chosen thesis topic) | | |
| Prerequisites and co-requisites | | | |
| Assessment methods and criteria | Subject passing criteria | Passing threshold | Percentage of the final grade |
| | diploma thesis | 60.0% | 100.0% |
| Recommended reading | Basic literature | original research articles, monographs and textbooks | |
| | Supplementary literature | Review articles | |
| | eResources addresses | Adresy na platformie eNauczanie: | |
| Example issues/ example questions/ tasks being completed | | | |
| Work placement | Not applicable | | |

Document generated electronically. Does not require a seal or signature.