

## 。 GDAŃSK UNIVERSITY OF TECHNOLOGY

## Subject card

| Subject name and code                          | MSc Diploma Thesis I, PG_00064261  |  |  |                                     |     |  |  |     |  |
|--|--|--|--|-------------------------------------|-----|--|--|-----|--|
| Field of study                                 | Biomedical Engineering, Biomedical Engineering, Biomedical Engineering   |  |  |                                     |     |  |  |     |  |
| Date of commencement of studies                | February 2025  |  | Academic year of<br>realisation of subject |                                     |     | 2025/2026  |  |     |  |
| Education level                                | second-cycle studies   |  | Subject group                              |                                     |     | Optional subject group   |  |     |  |
|  |  |  |  |                                     |     | Specialty 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                                  | 1  |  | Language of instruction                    |                                     |     | Polish   |  |     |  |
| Semester of study                              | 2  |  | ECTS credits                               |                                     |     | 5.0  |  |     |  |
| Learning profile                               | general academic profile   |  | Assessment form                            |                                     |     | assessment   |  |     |  |
| Conducting unit                                | Department of Biomedical Engineering -> Faculty of Electronics, Telecommunications and Informatics   |  |  |                                     |     |  |  |     |  |
| Name and surname                               | Subject supervisor   |  | dr hab. inż. Mariusz Kaczmarek             |                                     |     |  |  |     |  |
| of lecturer (lecturers)                        | 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                                 | 0.0 | 0.0  |  | 0   |  |
|  | E-learning hours included: 0.0   |  |  |                                     |     |  |  |     |  |
| Learning activity<br>and number of study hours | Learning activity  | Participation in didactic<br>classes included in study<br>plan |  | Participation in consultation hours |     | Self-study   |  | SUM |  |
|  | Number of study hours  | 0  |  | 30.0                                |     | 95.0   |  | 125 |  |
| Subject objectives                             | Familiarizing students with the process of defining a research problem, methods of its analysis, methods of evaluating the obtained results and techniques for documenting individual stages of research implementation. |  |  |                                     |     |  |  |     |  |

| Learning outcomes  | Course outcome   | Subject outcome   | Method of verification   |  |  |  |
|--|--|---|--|--|--|--|
|  | [K7_U08] while identifying and<br>formulating engineering tasks<br>specifications and solving these<br>tasks, can: - apply analytical,<br>simulation and experimental<br>methods, - notice their systemic<br>and non-technical aspects, - make<br>a preliminary economic<br>assessment of suggested<br>solutions and engineering work  | The student knows the basic<br>techniques of data modeling, key<br>standards for IT systems. The<br>student knows the principles of<br>protecting intellectual values.<br>Understands the impact of their<br>actions on the economy and the<br>environment in which they operate. | [SU1] Assessment of task<br>fulfilment   |  |  |  |
|  | [K7_K03] is ready to meet social<br>obligations, inspire and organise<br>activities for the social<br>environment, initiate actions for<br>the public interest, think and act in<br>an entrepreneurial way   | Is able to work in a group, identify<br>basic problems in the work<br>environment and propose<br>methods of solving them.   | [SK5] Assessment of ability to<br>solve problems that arise in<br>practice<br>[SK1] Assessment of group work<br>skills |  |  |  |
|  | [K7_K02] is ready to provide<br>critical evaluation of received<br>content and to acknowledge the<br>importance of knowledge in<br>solving cognitive and practical<br>problems   | The student knows and<br>understands the principles of<br>conducting scientific work, the<br>research methods used and<br>determining the conditions for their<br>use   | [SK5] Assessment of ability to<br>solve problems that arise in<br>practice   |  |  |  |
|  | [K7_U10] can individually plan and<br>pursuit their own lifelong<br>education and influence others in<br>this aspect, also by means of<br>advanced information and<br>communication technologies<br>(ICT), and communicate on<br>specialist issues with diverse<br>recipients, appropriately justify<br>points of view, hold debates,<br>present, assess and discuss<br>different opinions and points of<br>view, as well as use specialist<br>terminology related to the field of<br>study in communication | The student knows basic data<br>modeling techniques, key<br>standards for information systems<br>and medical equipment safety,<br>computer-aided diagnostics<br>methods, and TI used in various<br>fields of healthcare.  | [SU2] Assessment of ability to<br>analyse information  |  |  |  |
| j  | Literature studies of the considered issue. Selection, justification and development of the research method. Conducting research, calculations, analysis of results, project proposal. Project implementation. Comparative analysis, conclusions.  |   |  |  |  |  |
| Prerequisites and co-requisites                                |  |   |  |  |  |  |
| Assessment methods and criteria                                | Subject passing criteria   | Passing threshold   | Percentage of the final grade  |  |  |  |
|  | Diploma work   | 60.0%   | 100.0%   |  |  |  |
| Recommended reading  | Basic literature   | Depending on the topic being covered.   |  |  |  |  |
|  | Supplementary literature   | Depending on the topic being covered.   |  |  |  |  |
|  | eResources addresses Adresy na platformie eNauczanie:  |   |  |  |  |  |
| Example issues/<br>example questions/<br>tasks being completed |  |   |  |  |  |  |
| Work placement   | Not applicable   |   |  |  |  |  |

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