# GDAŃSK UNIVERSITY OF TECHNOLOGY

## Subject card

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| Subject name and code | Automation of Business Processes, PG_00068333 |
| Field of study | Informatics |

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| Date of commencement of studies | February 2026 | Academic year of 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 | English |
| Semester of study | 1 | ECTS credits | 3.0 |
| Learning profile | general academic profile | Assessment form | assessment |

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| Conducting unit | Department of Computer Architecture -> Faculty of Electronics Telecommunications and Informatics -> Faculties of Gdańsk University of Technology |
| Name and surname of lecturer (lecturers) | Subject supervisor — dr inż. Tomasz Dziubich |
| | Teachers — mgr inż. Krystyna Dziubich |

| Lesson types | Lesson type | Lecture | Tutorial | Laboratory | Project | Seminar | SUM |
|---|---|---|---|---|---|---|---|
| | Number of study hours | 15.0 | 0.0 | 0.0 | 15.0 | 0.0 | 30 |
| | E-learning hours included: 0.0 | | | | | | |
| | eNauczanie source addresses: Moodle ID: 47870 Automation of Business Processes 2026 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=47870 | | | | | | |

| Learning activity and number of study hours | Learning activity | Participation in didactic classes included in study plan | Participation in consultation hours | Self-study | SUM |
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| | Number of study hours | 30 | 8.0 | 37.0 | 75 |

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| Subject objectives | Familiarising students with business processes (their identification, modelling, simulation, implementation and automation) and IT systems used at various stages. |

| Learning outcomes | | Course outcome | Subject outcome | Method of verification |
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| | | [K7_W03] knows and understands, to an increased extent, the construction and operating principles of components and systems related to the field of study, including theories, methods and complex relationships between them and selected specific issues - appropriate for the curriculum | Understands the construction and use of IT architecture in the context of the enterprise's business architecture | [SW1] Assessment of factual knowledge |
| | | [K7_U08] while identifying and formulating engineering tasks specifications and solving these tasks, can: - apply analytical, simulation and experimental methods, - notice their systemic and non-technical aspects, - make a preliminary economic assessment of suggested solutions and engineering work | It models business processes, simulates the process, takes actions to optimize the process in terms of time or costs. | [SU4] Assessment of ability to use methods and tools |
| | | [K7_W11] knows and understands, to an increased extent, the general principles of creation and development of forms of individual entrepreneurship and the economic, legal and other conditions of various types of activities related to the awarded qualification, including the principles of protection of industrial property and copyright law | is able to identify business rules and rules resulting from legal constraints and determine their impact on the form of the business process | [SW3] Assessment of knowledge contained in written work and projects |
| | | [K7_W10] knows and understands, to an increased extent, the basic processes occurring in the life cycle of equipment, objects and technical systems, as well as methods of supporting processes and functions, specific to the field of study | knows and understands the process life cycle and can recognise the life cycle phases supported by each class of workflow system | [SW1] Assessment of factual knowledge |

| Subject contents | Course content – lecture<br>Strategy, business modeling, Business process, BPA, porcess management;<br><br><br>Modeling business processes - BPMN<br><br><br>Automation of operational processes - SOA Suite (BPEL), BPM Suite;<br><br>Course content – project<br>Business process modelling in BPMN notation<br>Business process simulation (verification of bottlenecks and constraints)<br>Process implementation and process instance launch |
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| Prerequisites and co-requisites | |
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| Assessment methods and criteria | Subject passing criteria | Passing threshold | Percentage of the final grade |
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| | Exam | 50.0% | 60.0% |
| | Project | 50.0% | 40.0% |

| Recommended reading | Basic literature | J.Freund, B.Rucker, Real-Life BPMN, 2012 camunda, isbn: 978-1480034983 |
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| | Supplementary literature | D.M. Bridgeland, R.Zahavi: "Business Modeling - A practical Guide to Realizing Busines Value" Morgan Kaufmann 2009 Bruce Bukovics: "Pro WF: Windows Workflow in .NET 3.0" Apress 2007 |
| | eResources addresses | |

| Example issues/ example questions/ tasks being completed | Process modeling in BPMN notation |
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| Practical activites within the subject | Not applicable |
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