GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Automation of Business Processes, PG_00068333		
Field of study	Informatics		
Date of commencement of studies	February 2027	Academic year of realisation of subject	2026/2027
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
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 mgr inż. Hammed Mojeed	

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						

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	30	8.0	37.0	75

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
[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
Strategy, business modeling, Business process, BPA, porcess management;

Modeling business processes - BPMN

Automation of operational processes - SOA Suite (BPEL), BPM Suite;

Course content – project
Business process modelling in BPMN notation
Business process simulation (verification of bottlenecks and constraints)
Process implementation and process instance launch

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
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
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

Practical activites within the subject

Not applicable

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