



Subject card

Subject name and code	BUSINESS PROCESSES ANALYSIS, PG_00070559						
Field of study	Economic Analytics						
Date of commencement of studies	October 2026		Academic year of realisation of subject		2027/2028		
Education level	second-cycle studies		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	2		Language of instruction		Polish		
Semester of study	3		ECTS credits		4.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department of Management -> Faculty of Management and Economics -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Marzena Grzesiak				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	30.0	0.0	0.0	60
	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	60		3.0		37.0	100
Subject objectives	preparing students to identify, model, and optimize business processes based on reliable data, drawing on knowledge of analysis methods and BPMN notation, and fostering responsible attitudes toward organizational decision-making in ethical, economic, and social contexts						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K7_K03] responsibly fulfills professional roles, demonstrating the ability to identify ethical dilemmas and recognize and evaluate alternative courses of action.		is ready to participate responsibly in analysing and improving business processes, taking into account ethical dilemmas and the consequences of proposed solutions.		[SK5] Assessment of ability to solve problems that arise in practice		
	[K7_U04] is able to prepare and convincingly present the results of specialized analyses, providing in-depth interpretation during debates and meetings with various audiences.		is able to develop and present the results of business process analysis in a way tailored to different audiences, using data-driven arguments.		[SU4] Assessment of ability to use methods and tools [SU5] Assessment of ability to present the results of task		
	[K7_W06] knows and understands the principles of evaluating the reliability of utilized data, applying in-depth specialized knowledge in the field of economic analysis.		knows and understands principles for assessing the quality and reliability of data used in business process analysis and their importance for accurate process evaluation.		[SW3] Assessment of knowledge contained in written work and projects		

Subject contents	Course content – lecture 1. Basic concepts and definitions. 2. Process modelling using BPMN notation. 3. Determinants of process-based organisation 4. APQC PCF process architecture. 5. Designing a process-based organisation. Process maturity levels. 6. Process lifecycle. 7. SIPOC model. 8. Internal market relationships within the organisation. 9. Process metrics. 10. Quantitative process analysis. 11. Qualitative process analysis. 12. Process control. 13. Process improvement (CMMI model). 14. Methodology for implementing a process-based approach.		
	Course content – laboratory 1. Creative observation of reality in order to identify processes in which the student is a stakeholder, contractor or owner 2. Independent construction of a simulation model using iGrafx and BPMN notation, based on acquired skills 3. Conducting simulations, tests and analyzes to optimize the process 4. Making a description of the process. Defending the completed task		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Partial assignments and a final assignment	60.0%	66.0%
	Test with closed- and open-ended questions	60.0%	34.0%
Recommended reading	Basic literature	1. Dumas M., La Rosa.M, Mendling J., Rejiers H.A.: Business Process Management. Istota zarządzania procesami biznesowymi, PWN, Warszawa 2022 2. Davenport T.H., Harris J.G.: Inteligencja analityczna w biznesie, MT Biznes, Warszawa 2013 3. Gawin B., Marcinkowski B.: Symulacja procesów biznesowych. Standardy BPMS i BPMN w praktyce, Helion 2013 4. Piotrowski M.: Procesy biznesowe w praktyce. Projektowanie, testowanie i optymalizacja, Helion 2013 5. Misiak Z.: Modelowanie procesów biznesowych. BPMN 2.0 od podstaw, Onepress, 2023 Sliż P: Organizacja procesowo-projektowa. Istota. Modelowanie. Pomiar dojrzałości. Wydawnictwo Difin, Warszawa 2021	
	Supplementary literature	1. Bitkowska A.: Zarządzanie procesowe we współczesnych organizacjach, DIFIN, Warszawa 2013 2. Drejewicz Sz.: Zrozumieć BPMN. Modelowanie procesów biznesowych, Helion 2012 3. Piotrowski M.: Notacja modelowania procesów biznesowych. Podstawy, Wydawnictwo BTC 2014	
	eResources addresses		
Example issues/ example questions/ tasks being completed	• Discuss the differences between a process map and a process model • Discuss win-win strategies for managing process maturity growth • List typical internal processes where analytics is used. How can organizations build their competitive position based on analytics in these processes? • Discuss the SIPOC model used in the implementation of the process approach in the organization		
Practical activites within the subject	Not applicable		

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