



## Subject card

Subject name and code	Business process modelling, PG_00045364						
Field of study	Data Engineering						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2026/2027		
Education level	first-cycle studies		Subject group		Obligatory subject group in the field of study 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		English		
Semester of study	4		ECTS credits		3.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department Of Informatics In Management -> Faculty Of Management And Economics -> Wydział Politechniki Gdańskiej						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Marzena Grzesiak				
	Teachers		dr inż. Marzena Grzesiak				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	30.0	0.0	0.0	45
	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	45		5.0		25.0	75
Subject objectives	Gaining knowledge and skills in the field of process modeling in the organization. Acquiring the ability to use IT tools for process modeling introduction to BPMN notation.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_W07] analyzes business processes in an advanced way in the technical, legal, economic, financial and social context		understand the differences between processes implemented in different areas of the organisation and indicate the relationships between them		[SW3] Assessment of knowledge contained in written work and projects		
	[K6_W05] integrates data from multiple sources in order to analyze complex business problems		knows how to obtain important information about processes and uses it to analyse and improve processes		[SW3] Assessment of knowledge contained in written work and projects		
	[K6_U01] analyzes and evaluates complex processes in the context of their improvement possibilities, using various methods, including analytical and simulation		builds processes in BPMN notation, simulates the process in a selected tool, can indicate possibilities of process improvement based on report results		[SU4] Assessment of ability to use methods and tools		
Subject contents	<p>Lectue: Definition of process, business process, business process modeling. BPM history and evolution. Process orientation. Why modeling/ simulate? Business process life cycle. Processes identification and classification. Process mapping. Modeling and simulation tools. Process metrics. Business Process Modeling Notation.</p> <p>Laboratory: Exercises for getting to know the iGrafx application. Exercises strengthen the skills related to model parameters defining: run setup, schedules, events, generators, resources, attributes; Shapes properties defining (for activities: Task, Resources, Attributes sections; for gateways: Inputs and Outputs sections; for events: Inputs, Task/ On completion sections); Run simulation, report analysis, process optmization. Individual project realization.</p>						
Prerequisites and co-requisites							

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Examination	56.0%	34.0%
	Exercises and individual project.	56.0%	66.0%
Recommended reading	Basic literature	Hernes T. (2008), Understanding Organizatios as a Process. Theory for a tangled world, Routledge Taylor&Francis Group, London and New York  Dumas M., La Rosa M., Mendling J., Reijers H.A. (2013, 2018), Fundamentals of Business Process Management, Springer-Verlag GmbH Germany  Kossak F. (at all) (2016),Hagenberg Business Process Modelling Method, Springer International Publishing Switzerland	
	Supplementary literature	Hewing M. (2014), Business Process Blueprinting. A Method for Customer-Oriented Business Process Modeling, Springer Fachmedien Wiesbaden	
	eResources addresses	Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed	Lecture:Indicate the primary and subsidiary processes in your organization.  Discuss the use of three selected tools used for process modeling.  Evaluate their application to specific situations.  Discuss the method of building a process measurement system.  Laboratory:Build a process model using BPMN notation. Conduct a simulation experiment. Interpret results and introduce improvements to the process.		
Work placement	Not applicable		

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