GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Business process modelling, PG_00045364		
Field of study	Data Engineering		
Date of commencement of studies	October 2023	Academic year of realisation of subject	2024/2025
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		
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_W08] Knows the models and structure of the data mining process and their multidimensional analysis and can assess the results of such analyses	Identifies the processes. Interpret the results. Can indicate the possibilities of using the results.	[SW1] Assessment of factual knowledge
[K6_U03] analyses problems and creates appropriate models, data structures and algorithms (including heuristic and numerical ones), assesses their computational complexity, estimates errors of the received solutions	Knows the process modeling tools. Models business processes.	[SU4] Assessment of ability to use methods and tools
[K6_K03] Knows how to cooperate or work in a project team and take managerial or executive functions.	Carries out tasks. Uses communication tools to accomplish tasks.	[SK2] Assessment of progress of work

Subject contents

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.

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 optymization. Individual project realization.

Prerequisites and co-requisites

<table>
<tr><td>Assessment methods and criteria</td><td colspan="2"><table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>Exercises and individual project.</td><td>56.0%</td><td>50.0%</td></tr>
<tr><td>Examination</td><td>56.0%</td><td>50.0%</td></tr>
</table></td></tr>
<tr><td rowspan="3">Recommended reading</td><td>Basic literature</td><td>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</td></tr>
<tr><td>Supplementary literature</td><td>Hewing M. (2014), Business Process Blueprinting. A Method for Customer-Oriented Business Process Modeling, Springer Fachmedien Wiesbaden</td></tr>
<tr><td>eResources addresses</td><td>Adresy na platformie eNauczanie:</td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td colspan="2">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 PCF (Process Classification Framework) classification.Laboratory:Build a process model using BPMN notation. Conduct a simulation experiment. Interpret results and introduce improvements to the process.</td></tr>
<tr><td>Work placement</td><td colspan="2">Not applicable</td></tr>
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