GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	BUSINESS PROCESSES ANALYSIS, PG_00037797		
Field of study	Economic Analytics		
Date of commencement of studies	October 2022	Academic year of realisation of subject	2023/2024
Education level	second-cycle studies	Subject group	Optional subject group Subject group related to scientific research in the field of study
Mode of study	Part-time studies	Mode of delivery	at the university
Year of study	2	Language of instruction	Polish
Semester of study	3	ECTS credits	3.0
Learning profile	general academic profile	Assessment form	exam
Conducting unit	Department of Management -> Faculty of Management and Economics		
Name and surname of lecturer (lecturers)	Subject supervisor		
	Teachers		

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	8.0	0.0	8.0	0.0	0.0	16

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	16	6.0	53.0	75

Subject objectives

The aim of the course is to: acquire advanced knowledge and skills in the analysis of processes within an organization; acquire the ability of independent use of IT tools used in the analysis of business processes using BPMN.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K7_W15] has an in-depth knowledge of the processes taking place in the company and the risks associated with it	Posses advanced knowledge about the ways, tools and methods of business processes analysis.	[SW1] Assessment of factual knowledge
[K7_K03] can assess the validity of criteria and tasks in the projects implemented	Identifies and models the business processes independently choosing its complexity and the detail level of the analyzes.	[SK2] Assessment of progress of work
[K7_U03] can identify and analyse the causes and course of specific economic processes and phenomena as well as propose solutions based on them	Analyze and modeling business processes using simulation software and BPMN.	[SU4] Assessment of ability to use methods and tools
[K7_U13] can design and execute tasks entrusted to them, effectively cooperating in a team	Increase the effectiveness of realized tasks using the opportunity of group exchange of experience and mutual inspiration.	[SU1] Assessment of task fulfilment

Subject contents

Lecture: Strategies to implement changes in the dynamics of processes within an organization. Competing on the basis of the analysis of the processes of internal and external. Build analytical competence. Managing of the maturity process increase . The methodology of implementation of the process approach. Processes architecture - APQC PCF. SIPOC model. BPMN notation - advanced modeling. Abnormal cases service-advanced aspects of the event. Mapping processes. Processes architecture construction. Gates advanced properties . Artifacts. Collaboration diagram- case study. Choreography diagram- case study. Conversation diagram- case study.

Lab: Creative observation of reality to identify processes that the student is a stakeholder, performer or owner. Individual realization of a simulation model using iGrafx and BPMN, based on skills acquired in the preceding semester within the subject *Process modeling within an organization*. Simulations, tests and analyzes in order to optimize the process. Process description. Defense of realized task.

<table>
<tr><td>Prerequisites and co-requisites</td><td colspan="3">Passed subject Process modeling within an organization in the preceding semester.</td></tr>
<tr><td>Assessment methods and criteria</td><td colspan="3"><table><tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr><tr><td>Project</td><td>56.0%</td><td>50.0%</td></tr><tr><td>Exam</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 colspan="2">•Auksztol J., Chomuszko M. (red.): Modelowanie organizacji procesowej, PWN, Warszawa 2012

•Davenport T.H., Harris J.G.: Inteligencja analityczna w biznesie, MT Biznes, Warszawa 2013

•Gawin B., Marcinkowski B.: Symulacja procesów biznesowych. Standardy BPMS i BPMN w praktyce, Helion 2013

•Piotrowski M.: Procesy biznesowe w praktyce. Projektowanie, testowanie i optymalizacja, Helion 2013

•User manual of iGrafx Process, available on the Internet</td></tr>
<tr><td>Supplementary literature</td><td colspan="2">•Bitkowska A.: Zarządzanie procesowe we współczesnych organizacjach, DIFIN, Warszawa 2013

•Drejewicz Sz.: Zrozumieć BPMN. Modelowanie procesów biznesowych, Helion 2012

•Piotrowski M.: Notacja modelowania procesów biznesowych. Podstawy, Wydawnictwo BTC 2014</td></tr>
<tr><td>eResources addresses</td><td colspan="2"></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td colspan="3">Discuss the differences between a flow chart and process model.

Discuss the selection of strategies for managing growth in maturity process.

List the typical internal processes, that apply analytics. How organizations can build their competitive positions based on analytics in these processes?

Discuss SIPOC model used while implementing process approach within the organization.

Lab: Prepare full-fledged simulation model of choosen process, present the simulation results, make optimization, suggest changes for improving the process.</td></tr>
<tr><td>Work placement</td><td colspan="3">Not applicable</td></tr>
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