



Subject card

Subject name and code	BUSINESS PROCES MANAGEMENT, PG_00070687						
Field of study							
Date of commencement of studies	October 2026		Academic year of realisation of subject		2028/2029		
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	3		Language of instruction		English		
Semester of study	5		ECTS credits		6.0		
Learning profile	general academic profile		Assessment form		exam		
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	45.0	0.0	0.0	75
	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	75		3.0		72.0	150
Subject objectives	to prepare students to use analytical and simulation methods to model and improve management processes, based on knowledge of the use of simulation models in management practice, in the context of solving complex problems of modern management and improving organizational processes.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_W05] possesses advanced knowledge in integrating data from various sources and in the methods that enable a comprehensive analysis of contemporary management issues.		knows and understands the use of simulation models in management practice, in the context of analyzing and improving complex organizational processes based on data from multiple sources.		[SW3] Assessment of knowledge contained in written work and projects		
	[K6_K03] is prepared to critically assess the knowledge they possess, which is necessary for solving cognitive and practical problems, and to supplement any gaps with opinions from external experts.		is ready to critically evaluate their own assumptions and simulation model results and to verify them through consultation with experts and analysis of relevant literature in order to reliably solve organizational problems.		[SK2] Assessment of progress of work [SK3] Assessment of ability to organize work		
	[K6_U01] is able to analyze and evaluate complex processes in terms of their improvement, using various methods, including analytical and simulation techniques.		is able to analyze and improve complex processes by applying analytical and simulation methods discussed in class to model organizational activities and assess their effectiveness.		[SU4] Assessment of ability to use methods and tools [SU5] Assessment of ability to present the results of task		

Subject contents	Course content – lecture 1. Introduction to the Course 2. Defining Basic Concepts, Queuing Systems, Models 3. General Characteristics of the Process Approach in an Organization 4. Queuing Theory - Selected Topics 5. Structure of a Simulation Model (Static and Dynamic) 6. Principles of Building a Process Map 7. Introduction to iGrafx 8. Structure: Department, Activity, Resources, Costs, Transaction Generator, Schedules 9. Principles for Assigning Properties to Activities: Inputs, Outputs, Task, Resources, Attributes 10. Defining a Task (Task Type, Duration, Schedule, Capacity) 11. Defining Inputs to an Activity (Starting Point, Input Transaction Collection) 12. Transaction Generators, Types and Method of Defining 13. Resources, Defining (Classification, Costs, Schedule, Overtime, Costs, Availability, Attributes), Assigning to Tasks (Type, Origin, Assignment Method, Constraint, Waiting Options, Affinity) 14. Tasks, Types (Work, Delay, Subprocess, Concurrent Process), Costs (Value Class), Overtime Performance 15. Attributes, Defining (Location, Type, value, name), setting values 16. Defining decision-making activities 17. Defining the simulation environment 18. Rules for scenario construction 19. Conducting a simulation experiment 20. Analyzing the results. 21. No-code tools - principles of working with the platform Course content – laboratory 1. Getting Started with the Tool - Performing a Reproductive Exercise 2. Building a Process Diagram with Parameter Definition 3. Defining and Using Schedules 4. Defining and Using Transaction Generators 5. Defining Task Parameters (Task Type, Duration, Schedule, Capacity), Types (Work, Delay, Subprocess, Concurrent Process), Costs (Value Class), Overtime 6. Defining Inputs to Activities (Starting Point, Input Transaction Collection) 7. Defining Resources (Classification, Costs, Schedule, Overtime, Costs, Availability, Attributes), Assigning to Tasks (Type, Origin, Assignment Method, Constraint, Waiting Options, Affinity) 8. Defining Attributes (Position, Type, Value, Name), Setting Values, and Using them in Process Control 9. Defining Decision-Making Activities 10. Defining the Simulation Environment 11. Creating Scenarios 12. Conducting a Simulation Experiment 13. Analyzing Results. Developing a Simple Queuing System Model Based on the Description 14. Developing a Custom Design for a Complex Queuing System. 15. Creating a prototype application and implementation documentation using a no-code tool.																	
Prerequisites and co-requisites																		
Assessment methods and criteria	<table><tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr><tr><td>Quiz with closed and open-ended questions</td><td>60.0%</td><td>32.5%</td></tr><tr><td>Assessment of the implementation of the design task</td><td>60.0%</td><td>32.5%</td></tr><tr><td>Process hackathon – design process documentation</td><td>60.0%</td><td>17.5%</td></tr><tr><td>Assessment of the quality of model constructed step by step by stages</td><td>0.0%</td><td>17.5%</td></tr></table>	Subject passing criteria	Passing threshold	Percentage of the final grade	Quiz with closed and open-ended questions	60.0%	32.5%	Assessment of the implementation of the design task	60.0%	32.5%	Process hackathon – design process documentation	60.0%	17.5%	Assessment of the quality of model constructed step by step by stages	0.0%	17.5%		
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Example issues/ example questions/ tasks being completed	• Build a simulation model of the selected proces • Carry out a simulation experiment • Interpret the results and make improvements to the proces																	

Practical activities within the subject	Not applicable
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