

Subject card

Subject name and code	IT Tools and Techniques in Business Process Management, PG_00177464						
Field of study	Informatics and Econometrics						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2026/2027		
Education level	Master's studies		Subject group		Obligatory subject group in the field of study Optional 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		English		
Semester of study	3		ECTS credits		5.0		
Learning profile	academic		Assessment form		credit		
Conducting unit							
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. inż. Bartłomiej Gawin				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	45.0	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		4.0		61.0	125
Subject objectives	Skills improving of multidimensional modeling, parameterization, simulation and analysis of business processes in dedicated IT tools.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[liEMU2_U01] The student can creatively and profoundly analyze complex social and economic processes using structured knowledge, econometrics, informatics, or statistics tools.		The student is able to analyze and interpret complex and multidimensional business processes in an in-depth and creative way using structured knowledge and IT tools.		[SU2] presentation/project/paper/report		
	[liEMU2_U12] The student can adapt, design, create, and operate IT systems that support business entities.		The student is able to design business processes that support the functioning of economic entities.		[SU2] presentation/project/paper/report		
	[liEMU2_U11] The student can collaborate effectively in teams and assume leadership roles.		The student is able to cooperate and work in process teams, direct their design work or take a leading role in them.		[SU2] presentation/project/paper/report		
	[liEMU2_W06] The student possesses a structured understanding of the processes, methods, and tools necessary for the design, creation, development, and provision of suitable conditions for informatics, econometrics or statistics tools.		The student has structured and theoretically based knowledge of business processes, tools and techniques for their design, parameterization, simulation and analysis.		[SW2] presentation/project/paper/report		

Subject contents	A. Lecture topics		
	Discussion of the basics of business process management Discussion of design notations for modeling business processes and decision rules Discussion of tools for designing, simulating, and analyzing business processes Discussion of tools for designing, simulating, and analyzing decision rules in business processes		
	B. Exercise topics		
	Practical presentation and application of the Adonis tool in exercise work		
Prerequisites and co-requisites	Prerequisites: Economic informatics, databases Additional requirements:		
	Basic knowledge of organizational management		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	work project	50.0%	100.0%
Recommended reading	Basic literature	Gawin B., Systemy informatyczne w zarządzaniu procesamiworkflow, PWN 2015	
		Gawin B., Marcinkowski B.: Symulacje procesów biznesowych.Standardy BPMS i BPMN w praktyce, Helion 2013	
	Supplementary literature	BOC: ADONIS User Manual	
		Mathias Weske, Business Process Management: Concepts,Languages, Architectures, Springer 2012	
	eResources addresses		
Example issues/ example questions/ tasks being completed	Design a multidimensional business process model in ADONIS, parameterize it and perform path simulation and load analysis.		
Work placement	Not applicable		

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