University of Gdańsk

Subject card

Subject name and code	IT Tools and Techniques in Business Process Management, PG_00177819		
Field of study	Informatics and Econometrics		
Date of commencement of studies	October 2026	Academic year of realisation of subject	2027/2028
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	Polish
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
[IiEMU2_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
[IiEMU2_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
[IiEMU2_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
[IiEMU2_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

<table>
<tr><td>Subject contents</td><td>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 exercises</td></tr>
<tr><td>Prerequisites and co-requisites</td><td>Prerequisites: Economic informatics, databases
Additional requirements: Basic knowledge of organizational management</td></tr>
<tr><td>Assessment methods and criteria</td><td><table><tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr><tr><td>Project work</td><td>50.0%</td><td>100.0%</td></tr></table></td></tr>
<tr><td rowspan="3">Recommended reading</td><td>Basic literature</td><td>• Gawin B., Systemy informatyczne w zarządzaniu procesami workflow, PWN 2015
• Gawin B., Marcinkowski B.: Symulacje procesów biznesowych. Standardy BPMS i BPMN w praktyce, Helion 2013</td></tr>
<tr><td>Supplementary literature</td><td>• BOC: ADONIS User Manual
• Mathias Weske, Business Process Management: Concepts,Languages, Architectures, Springer 2012</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td>Design a multidimensional business process model in the ADONIS system, parameterize it, and perform path simulation and load analysis.</td></tr>
<tr><td>Work placement</td><td>Not applicable</td></tr>
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