

Subject card

Subject name and code	Sustainable Computerization of Business, PG_00177517						
Field of study	Informatics and Econometrics						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2025/2026		
Education level	Master's studies		Subject group		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	1		Language of instruction		Polish		
Semester of study	2		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	45.0	0.0	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	Mastering skills that support IT project management, as well as the implementation of tasks in projects involving the implementation of applications and IT systems in correlation with the company's business goals and processes and taking into account the architectural order and sustainable development of the organization.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[liEMU2_U12] The student can adapt, design, create, and operate IT systems that support business entities.		The student is able to design IT systems for enterprises using advanced design techniques and taking into account the flexibility of these systems for the sustainable computerization of the organization.		[SU2] presentation/project/paper/report		
	[liEMU2_W02] The student comprehends advanced theoretical and practical concepts in econometrics, informatics, or statistics, which are essential for a deeper understanding of economic and social phenomena.		The student knows and understands advanced theoretical and practical design issues in the field of economic informatics, necessary for the sustainable design of information systems.		[SW2] presentation/project/paper/report		

Subject contents	A. Lecture topics		
	• Discussion of the definition, principles and architectural framework of enterprise architecture • Discussion of tools for managing the enterprise architecture of an organization • Discussion of the TOGAF methodology for managing enterprise architecture • Discussion of the issues of sustainable development and digitalization of an organization • Discussion of issues regarding processes and tools supporting the management of energy efficiency of an enterprise • Discussion of issues regarding the design of IT systems in UML notation		
	B. Exercise topics		
	• Practical presentation and application in exercises of the ADOit tool • Practical presentation and application in exercises of the EA tool • Practical presentation and application in exercises of methodologies and tools for designing IT systems supporting the sustainable development of an enterprise		
Prerequisites and co-requisites	Basic knowledge of mathematics and computer science.		
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 procesami workflow, PWN 2015	
		Sobczak A., Architektura korporacyjna. Aspekty teoretyczne i wybrane zastosowania praktyczne, Ośrodek studiów nad cyfrowym państwem 2013	
		BOC: electronic materials on IT architecture management in ADOit	
	Supplementary literature	Informatyka ekonomiczna, pod red. S. Wrycza., J. Maślankowski, Wydawnictwo Naukowe PWN, Warszawa 2019	
	eResources addresses		
Example issues/ example questions/ tasks being completed	Design an enterprise IT architecture model for the selected enterprise in the ADOIT tool.		
Work placement	Not applicable		

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