University of Gdańsk

Subject card

Subject name and code	Sustainable Computerization of Busines, PG_00178734		
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	part-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	dr hab. inż. Bartłomiej Gawin	

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	8.0	24.0	0.0	0.0	0.0	32

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	32	2.0	91.0	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
[IiEMU2_W01] The student possesses a profound understanding of the nature and evolution of theories in management, quality sciences, economics, and finance. They know these fields' significance within the broader social sciences. Additionally, the student learns the main trends in developing informatics and statistics tools.	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
[IiEMU2_U06] Students can utilize structured and detailed knowledge of management, quality sciences, economics, and finance to address dilemmas and develop innovative solutions for complex or unusual problems that arise in professional settings.	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

<table>
<tr><td>Subject contents</td><td>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</td></tr>
<tr><td>Prerequisites and co-requisites</td><td>Basic knowledge of mathematics and computer science.</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>work project</td><td>51.0%</td><td>100.0%</td></tr></table></td></tr>
<tr><td>Recommended reading</td><td><table><tr><td>Basic literature</td><td>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</td></tr><tr><td>Supplementary literature</td><td>Informatyka ekonomiczna, pod red. S. Wrycza., J. Maślankowski, Wydawnictwo Naukowe PWN, Warszawa 2019</td></tr><tr><td>eResources addresses</td><td></td></tr></table></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td>Design an enterprise IT architecture model for the selected enterprise in the ADOIT tool.</td></tr>
<tr><td>Work placement</td><td>Not applicable</td></tr>
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