



Subject card

Subject name and code	Informatization strategies, PG_00045371						
Field of study	Data Engineering						
Date of commencement of studies	October 2022	Academic year of realisation of subject			2024/2025		
Education level	first-cycle 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	3	Language of instruction			English		
Semester of study	5	ECTS credits			3.0		
Learning profile	general academic profile	Assessment form			assessment		
Conducting unit	Department of Informatics in Management -> Faculty of Management and Economics						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Grażyna Musiatowicz-Podbiał				
	Teachers		dr Grażyna Musiatowicz-Podbiał				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	15.0	0.0	0.0	30
	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	30		4.0		41.0	75
Subject objectives	The aim of the course is to prepare students for developing enterprise informatization strategies, including definition of the current state and future state, and activities to realize strategic goals for a given process.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_W02] Knows and understands the standards of network management, architecture, technologies and services of telecommunications networks. Knows the main protocols of packet networks, understands the operation of local networks and network connection rules.						
	[K6_K01] is aware of quickly changing trends and the resulting need for further education and self-improvement in the area of the performed profession of an engineer with IT and economic-financial skills.		A student is able to select the informatization strategy to the tasks performed in an enterprise		[SK5] Assessment of ability to solve problems that arise in practice		
	[K6_U03] analyses problems and creates appropriate models, data structures and algorithms (including heuristic and numerical ones), assesses their computational complexity, estimates errors of the received solutions						

Subject contents	<p>LECTURES:</p> <ul style="list-style-type: none"> • New organizational forms in business and information technology • Information technology and business effectiveness – Return on Investment (ROI) • Balanced Score Card (BSC) • Enterprise Architecture • TOGAF - Enterprise Architecture development method • Integrated information systems • Structural design methods for system integration (SI) • Object-oriented approach • Object-oriented design methods, such as UML • Business project planning for SI – phases • Management of SI project – determining effectiveness • Safety organization <p>EXERCISES:</p> <ul style="list-style-type: none"> • BSC modelling and Enterprise Architecture guidelines • Object model for selected process • Analyzing effectiveness of the informatized process 											
Prerequisites and co-requisites	Foundations of informatics											
Assessment methods and criteria	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Subject passing criteria</th> <th style="width: 30%;">Passing threshold</th> <th style="width: 30%;">Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td>Report</td> <td>50.0%</td> <td>40.0%</td> </tr> <tr> <td>Exam</td> <td>50.0%</td> <td>60.0%</td> </tr> </tbody> </table>			Subject passing criteria	Passing threshold	Percentage of the final grade	Report	50.0%	40.0%	Exam	50.0%	60.0%
Subject passing criteria	Passing threshold	Percentage of the final grade										
Report	50.0%	40.0%										
Exam	50.0%	60.0%										
Recommended reading	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%; vertical-align: top;">Basic literature</td> <td colspan="2" style="vertical-align: top;"> <p>Robert Kaplan, David Norton; Wdrażanie strategii dla osiągnięcia przewagi konkurencyjnej; PWN W-wa 2010</p> <p>TOGAF - materiały</p> <p>Jeanne Ross, Peter Weill, David Robertson; Architektura korporacyjna jako strategia; Studio Emka W-wa 2010</p> <p>Krzysztof Sacha; Inżynieria oprogramowania; PWN W-wa 2010</p> <p>Janusz Górski (red.); Inżynieria oprogramowania w projekcie informatycznym"; Mikom W-wa</p> <p>Rafał Cegiela, Andrzej Zalewski; Racjonalne zarządzanie przedsięwzięciami informatycznymi i systemami komputerowymi; Nakom Poznań 2000</p> </td> </tr> <tr> <td style="vertical-align: top;">Supplementary literature</td> <td colspan="2" style="vertical-align: top;"> <p>Stanisław Wrycza, Bartosz Marcinkowski, Krzysztof Wyrzykowski; Język UML 2.0 w modelowaniu systemów informatycznych"; Helion 2005</p> <p>Patrick Graessle, Henriette Baumann, Philippe Bauman; UML 2.0 w akcji. Przewodnik oparty na projektach; Helion 2006</p> <p>Zenon Biniek; Wybrane elementy zarządzania projektem informatycznym; Vizja w-wa 2010</p> </td> </tr> <tr> <td style="vertical-align: top;">eResources addresses</td> <td colspan="2"></td> </tr> </table>			Basic literature	<p>Robert Kaplan, David Norton; Wdrażanie strategii dla osiągnięcia przewagi konkurencyjnej; PWN W-wa 2010</p> <p>TOGAF - materiały</p> <p>Jeanne Ross, Peter Weill, David Robertson; Architektura korporacyjna jako strategia; Studio Emka W-wa 2010</p> <p>Krzysztof Sacha; Inżynieria oprogramowania; PWN W-wa 2010</p> <p>Janusz Górski (red.); Inżynieria oprogramowania w projekcie informatycznym"; Mikom W-wa</p> <p>Rafał Cegiela, Andrzej Zalewski; Racjonalne zarządzanie przedsięwzięciami informatycznymi i systemami komputerowymi; Nakom Poznań 2000</p>		Supplementary literature	<p>Stanisław Wrycza, Bartosz Marcinkowski, Krzysztof Wyrzykowski; Język UML 2.0 w modelowaniu systemów informatycznych"; Helion 2005</p> <p>Patrick Graessle, Henriette Baumann, Philippe Bauman; UML 2.0 w akcji. Przewodnik oparty na projektach; Helion 2006</p> <p>Zenon Biniek; Wybrane elementy zarządzania projektem informatycznym; Vizja w-wa 2010</p>		eResources addresses		
Basic literature	<p>Robert Kaplan, David Norton; Wdrażanie strategii dla osiągnięcia przewagi konkurencyjnej; PWN W-wa 2010</p> <p>TOGAF - materiały</p> <p>Jeanne Ross, Peter Weill, David Robertson; Architektura korporacyjna jako strategia; Studio Emka W-wa 2010</p> <p>Krzysztof Sacha; Inżynieria oprogramowania; PWN W-wa 2010</p> <p>Janusz Górski (red.); Inżynieria oprogramowania w projekcie informatycznym"; Mikom W-wa</p> <p>Rafał Cegiela, Andrzej Zalewski; Racjonalne zarządzanie przedsięwzięciami informatycznymi i systemami komputerowymi; Nakom Poznań 2000</p>											
Supplementary literature	<p>Stanisław Wrycza, Bartosz Marcinkowski, Krzysztof Wyrzykowski; Język UML 2.0 w modelowaniu systemów informatycznych"; Helion 2005</p> <p>Patrick Graessle, Henriette Baumann, Philippe Bauman; UML 2.0 w akcji. Przewodnik oparty na projektach; Helion 2006</p> <p>Zenon Biniek; Wybrane elementy zarządzania projektem informatycznym; Vizja w-wa 2010</p>											
eResources addresses												

Example issues/ example questions/ tasks being completed	Calculating return-on-investment and analysis of the impact of informatization on the effectiveness of an enterprise BSC project accounting for informatization processes – vision Requirements analysis for selected process Effectiveness analysis of informatization project
Work placement	Not applicable