Subject card

Subject name and code	COMPUTER SCIENCE IN MANAGEMENT, PG_00061446					
Field of study	Engineering Management					
Date of commencement of studies	October 2024		Academic year of realisation of subject		2024/2025	
Education level	first-cycle studies		Subject group		Obligatory subject group in the field of study	
					Subject group related to scientific research in the field of study	
Mode of study	Part-time studies (on-line)		Mode of delivery		blended-learning	
Year of study	1		Language of instruction		Polish	
Semester of study	2		ECTS credits		4.0	
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 inż. Anna Trzaskowska			
	Teachers					

Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	24.0	0.0	0.0	24
	E-learning hours included: 20.0						

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	24	3.0	73.0	100

Subject objectives	Business data analysis and visualization - identifying sources of reliable data, analyzing and visualizing them, and using the results to evaluate and support management processes.

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[K6_W03] identifies reliable sources of information relevant to the analyzed issues	Analyzes data and information from various sources.	[SW3] Assessment of knowledge contained in written work and projects [SW2] Assessment of knowledge contained in presentation [SW1] Assessment of factual knowledge
	[K6_U07] applies information technology to improve critical analysis and evaluation of data and management processes	Uses known methods and tools to critically analyze and evaluate management processes. Presents the results of his work.	[SU5] Assessment of ability to present the results of task [SU4] Assessment of ability to use methods and tools [SU3] Assessment of ability to use knowledge gained from the subject [SU2] Assessment of ability to analyse information [SU1] Assessment of task fulfilment

Subject contents	Data acquisition. Excel Power Query and Power BI as a tool for data analysis and visualization. Gaining a competitive advantage through the use of methods business analytics.

Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	mini project	60.0%	50.0%
	practical exercises	60.0%	50.0%

Recommended reading	Basic literature	
		Radziszewski P., Business Intelligence, Poltex, Warszawa, 2016
		Surma J., Business Intelligence, PWN, Warszawa, 2018
		Surma J, Cyfryzacja życia w erze Big Data, PWN, Warszawa, 2017
	Supplementary literature	Own materials for laboratories
	eResources addresses	Adresy na platformie eNauczanie:

Example issues/ example questions/ tasks being completed	
	Introduction to Power BI.
	Data import.
	Working with data in Power Query.
	Creating relations.
	Reports.
	DAX functions.

Work placement	Not applicable