

Subject card

Subject name and code	Digital Competences, PG_00156102						
Field of study	Management						
Date of commencement of studies	October 2024		Academic year of realisation of subject		2026/2027		
Education level	undergraduate 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	full-time studies		Mode of delivery		at the university		
Year of study	3		Language of instruction		Polish		
Semester of study	6		ECTS credits		4.0		
Learning profile	academic		Assessment form				
Conducting unit	Katedra Informatyki Ekonomicznej -> Faculty of Management						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Dorota Buchnowska				
	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		2.0		38.0	100
Subject objectives	- the student masters the correct use of terminology related to ERP, CRM and AI systems and cybersecurity, - acquiring skills in working in ERP and CRM systems, importing data from ERP and CRM to analytical tools, advanced data analysis techniques (maps, treemaps, etc.), - creating automatic data flows, - preparing the student to effectively analyze risk and apply cybersecurity principles.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[ZARZL3_U06] The student is able to forecast and simulate selected economic and social phenomena in relation to macro (economy), as well as micro (enterprise) scale using methods and tools applied in management and quality sciences.	Is able to use tools enabling forecasting and simulating selected economic phenomena.	[SU2] presentation/project/paper/report [SU5] implementation of a problem task [SU8] observation of student's independent or team work
	[ZARZL3_U04] The student is able to use the acquired knowledge of management science and quality in professional practice.	Is able to apply acquired knowledge of IT systems in professional practice.	[SU2] presentation/project/paper/report [SU8] observation of student's independent or team work
	[ZARZL3_K05] The student is ready to correctly evaluate phenomena and clearly justify his position through rational, logical and entrepreneurial use of knowledge - basing his assertions and decisions on the analysis of received information.	Is ready to make an appropriate assessment of the enterprise's information needs and the possibilities of using IT tools appropriate to those needs.	[SK2] presentation/project/paper/report [SK5] implementation of a problem task
	[ZARZL3_W01] The student has advanced knowledge in the social sciences, with particular emphasis on the discipline of management and quality sciences, and understands their interrelationships with other social sciences.	Has advanced knowledge of management information systems and the possibilities of their use in the enterprise in various areas of management.	[SW4] test/exam - oral or written [SW2] presentation/project/paper/report
	[ZARZL3_K02] The student is aware of the need to supplement and expand the acquired knowledge and skills and strives to combine knowledge from different fields and disciplines of science interdisciplinarily.	Is aware of the need to supplement and expand acquired knowledge and skills in the use of IT tools in order to improve business processes in the enterprise.	[SK2] presentation/project/paper/report [SK5] implementation of a problem task
	[ZARZL3_K03] The student knows the need to identify important problems, including economic and social issues, and plan ways to solve them.	Is aware of the need to identify important problems in the functioning of the enterprise and plan ways to solve them using IT tools.	[SK2] presentation/project/paper/report [SK5] implementation of a problem task
	[ZARZL3_W13] The student knows advanced methods and techniques of managerial analysis to support the process of economic decision-making, and is familiar with sources of data and information from various fields of social sciences, especially management and quality sciences.	Knows advanced IT tools supporting the economic decision-making process, and knows the sources and methods of obtaining data and information.	[SW4] test/exam - oral or written [SW2] presentation/project/paper/report
	[ZARZL3_U07] The student is able to search for information necessary in making rational decisions of an operational and strategic nature in enterprises.	Is able to search for necessary information in the process of making rational decisions using appropriate IT tools.	[SU2] presentation/project/paper/report [SU5] implementation of a problem task

Subject contents	Lectures: 1. The origin, structure and properties of ERP systems. 2. The market and directions of development of ERP systems. 3. The structure and functionality of CRM systems. 4. The market and directions of development of CRM systems (automation, use of AI). 5. Tasks and applications of BI systems. 6. The maturity model of business analytics and the development of business analytics. 7. Security management systems, Personal data protection, Confidentiality in the network, Risk analysis. Exercises:Application of IT applications in business: 1. Preparing the system (SIZ/ERP) for work - configuration, customization; Files in the system - customer and assortment files. 2. Implementation of purchase and sales processes in SIZ/Warehouse and sales module. 3. Customer relationship management/CRM module. 4. Payroll and HR services/HR module. 5. Reporting in SIZ/ERP, downloading data to a spreadsheet. 6. SAP S/4HANA - navigation and analysis of a case study. 7. Integration in SAP S/4 HANA. 8. SAP S/4 HANA - FI module (receivables and payables). 9. SAP S/4 HANA - HCM subsystem (selected functionalities). Data analysis (BI tools): 1. Data download and preparation for analysis. 2. Creating visualizations (bar charts, line charts, maps, gauges, treemaps, etc.). 3. Data filtering. 4. Formatting visualizations and dashboards. Integration and automation: 1. Creating automatic data flows (e.g. Power Automate). 2. Creating and using AI models (e.g. AI Builder). Cybersecurity: 1. Risk analysis.												
Prerequisites and co-requisites	Formal requirements IT in management.Prerequisites basic knowledge of business processes.												
Assessment methods and criteria	<table><tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr><tr><td>final projects</td><td>51.0%</td><td>60.0%</td></tr><tr><td>tasks carried out during classes</td><td>71.0%</td><td>20.0%</td></tr><tr><td>written test</td><td>51.0%</td><td>20.0%</td></tr></table>	Subject passing criteria	Passing threshold	Percentage of the final grade	final projects	51.0%	60.0%	tasks carried out during classes	71.0%	20.0%	written test	51.0%	20.0%
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Example issues/ example questions/ tasks being completed													
Work placement	Not applicable												

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