



Subject card

Subject name and code	Business Informatics, PG_00067774						
Field of study	Economic Analytics						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2025/2026		
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	Full-time studies		Mode of delivery		at the university		
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 -> Wydział Politechniki Gdańskiej						
Name and surname of lecturer (lecturers)	Subject supervisor						
	Teachers						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	30.0	0.0	0.0	45
	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	45		5.0		50.0	100
Subject objectives	Acquisition of the ability to use information systems in organizations.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_U07] uses advanced information technologies to enhance data analysis and decision-making processes.		uses information technologies adequate to the problem to be solved, ensuring effective obtaining of the results needed to make a decision		[SU4] Assessment of ability to use methods and tools [SU3] Assessment of ability to use knowledge gained from the subject [SU1] Assessment of task fulfilment		
	[K6_W03] is familiar with reliable sources of information and employs advanced knowledge to explain the fundamental dilemmas of the contemporary economy		acquires knowledge from a variety of sources, appropriately supplementing it with data and observations, in order to properly understand the issues		[SW3] Assessment of knowledge contained in written work and projects [SW1] Assessment of factual knowledge		

Subject contents	<p>LECTURES</p> <p>Information technology as a tool supporting organizations</p> <p>Information theory.</p> <p>Data, information, knowledge, information capital, knowledge-based economy.</p> <p>Information attributes and information security.</p> <p>Information system: structure, typology, development trends.</p> <p>Software Development Life Cycle.</p> <p>Integrated systems of the MRP / MRP (II) / ERP.</p> <p>CRM systems.</p> <p>Decision-support systems (incl. AI tools)</p> <p>E-business environment.</p> <p>Digital economy, digital business, digital transformation of organizations.</p> <p>Digital channels, multi-channeling, omnichannelling.</p> <p>Network and virtual organizations.</p> <p>Industry 5.0 and Society 5.0.</p> <p>SDLC.</p> <p>LABORATORIES</p> <p>Using Excel as an analytical tool (sorting, filtering, searching and selecting of data).</p> <p>Data structures: tables, lists and databases.</p> <p>The use of financial formulas (loans, investments, discount and depreciation functions).</p> <p>Data format and presentation (date and time functions, non-standard data formats).</p> <p>Case study assignment based on actual market data.</p> <p>Final assignment.</p>		
Prerequisites and co-requisites	Foundational ability to use office applications for the analysis and presentation of data and phenomena, in particular referring to MS Excel.		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Labs and assignments assessment	50.0%	50.0%
	Knowledge tests and assignments to lectures	50.0%	50.0%
Recommended reading	Basic literature	Ciesielska, C., Musiatowicz-Podbiat, G.(2021) Zarys problematyki zarządzania zasobami informatycznymi w przedsiębiorstwie. Gdańsk: Wydawnictwo PG.Kisielnicki, J., Sroka, H. (2005). Systemy informacyjne biznesu; Informatyka dla zarządzania. Warszawa: AW Placet.Laudon, K. C., & Laudon, J. P. (2017). Essentials of management information systems. Pearson.Olszak, C., Ziemba, E. (red.) (2019). Strategie i modele gospodarki elektronicznej. Warszawa: PWN.Wrycza, S, Maślankowski, J. (red.) (2021). Informatyka ekonomiczna; wyd II. Warszawa: PWN.	
	Supplementary literature	Afuah, A., Tucci, C. (2003). Biznes internetowy, strategie i modele; Kraków: Oficyna Ekonomiczna. Cieciura, M. (2006). Podstawy technologii informatycznych z przykładami zastosowań. Warszawa: VIZJA PRESS&IT Sp. z o.o. Grudzewski, W., Hejduk, I. (2002). Przedsiębiorstwo wirtualne. Warszawa: Difin. Januszewski, A. (2008). Funkcjonalność Informatycznych systemów zarządzania - Zintegrowane systemy transakcyjne. Warszawa: PWN. Januszewski, A.(2008). Funkcjonalność Informatycznych systemów zarządzania - Systemy Business Intelligence. Warszawa: PWN.	
	eResources addresses	Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed	<p>What is the role of the IT system in an enterprise depending on the sector?</p> <p>How CRM systems support customer relationship management?</p> <p>Please list 5 advantages of using ERP system?</p> <p>Name the most important elements of Information Era.</p> <p>What are biggest challenges of IT system implementation?</p> <p>Describe Software Development Life Cycle.</p>		
Work placement	Not applicable		

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