GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Business Informatics, PG_00068615		
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	Part-time studies (on-line)	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 -> Wydziały 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	8.0	0.0	16.0	0.0	0.0	24

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	24	6.0	70.0	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

<table>
<tr><td>Subject contents</td><td>LECTURES
Information technology as a tool supporting organizations
Information theory.
Data, information, knowledge, information capital, knowledge-based economy.
Information attributes and information security.
Information system: structure, typology, development trends.
Software Development Life Cycle.
Integrated systems of the MRP / MRP (II) / ERP.
CRM systems.
Decision-suppor systems (incl. AI tools)
E-business environment.
Digital economy, digital business, digital transformation of organizations.
Digital channels, multi-channeling, omnichanelling.
Network and virtual organizations.
Industry 5.0 and Sociecty 5.0.
SDLC.

LABORATORIES
Using Excel as an analytical tool (sorting, filtering, searching and selecting of data).
Data structures: tables, lists and databases.
The use of financial formulas (loans, investments, discount and depreciation functions).
Data format and presentation (date and time functions, non-standard data formats).
Case study assignment based on actual market data.
Final assignment.</td></tr>
<tr><td>Prerequisites and co-requisites</td><td>Foundational ability to use office applications for the analysis and presentation of data and phenomena, in particulat refering to MS Excel.</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>Knowledge tests and assignments to lectures</td><td>50.0%</td><td>50.0%</td></tr>
<tr><td>Labs and assignments assessment</td><td>50.0%</td><td>50.0%</td></tr>
</table></td></tr>
<tr><td>Recommended reading</td><td><table>
<tr><td>Basic literature</td><td>Ciesielska, C., Musiatowicz-Podbiał, 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.</td></tr>
<tr><td>Supplementary literature</td><td>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.</td></tr>
<tr><td>eResources addresses</td><td>Adresy na platformie eNauczanie:</td></tr>
</table></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td>What is the role of the IT system in an enterprise depending on the sector?
How CRM systems support customer relationship management?
Please list 5 advantages of using ERP system?
Name the most important elements of Information Era.
What are biggest challenges od IT system implementation?
Describe Software Development Life Cycle.</td></tr>
<tr><td>Work placement</td><td>Not applicable</td></tr>
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