University of Gdańsk

Subject card

Subject name and code	Business Informatics, PG_00206343		
Field of study	Management		
Date of commencement of studies	October 2026	Academic year of realisation of subject	2026/2027
Education level	Bachelor's 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	1	ECTS credits	5.0
Learning profile	academic	Assessment form	exam
Conducting unit			
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. Jerzy Auksztol, prof. UG	
	Teachers	dr Anna Lenart dr Marek Markowski dr Magda Nurzyńska dr Monika Woźniak dr hab. Jerzy Auksztol, prof. UG	

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	4.0	61.0	125

Subject objectives

Educational objecives

To provide knowledge and teach the student:

- to prepare the student for effective and safe use of information technologies,
- the correct usage of terminology related to information technology,
- to acquire skills in creating documents, spreadsheets and multimedia presentations, principles of visual communication,
- to teach the principles of safe usage of the Internet, searching for information and critically evaluating and selecting it.

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[ZARZL3_U03] Can obtain data from properly selected and verified sources and use these data to analyse and evaluate economic processes and phenomena	The student correctly and critically selects data sources, selects and uses data and, as appropriate, processes and visualizes information in the analysis, evaluation, design and construction of IT tools supporting the understanding of economic phenomena and processes.	[SU2] presentation/project/paper/ report
	[ZARZL3_U12] Can utilize IT tools to enhance management-related professional tasks	The student is able to select, choose and use software tools (spreadsheets, text editors, graphic processing and visualization software) and selected information technologies supporting the processes of collecting, storing, sharing and processing data supporting management processes.	[SU2] presentation/project/paper/ report
	[ZARZL3_W05] Has knowledge and understanding of methods and techniques for acquiring, developing and using data in decision-making and management processes	Students recognize and select methods and techniques for storing, analyzing, and processing data in the context of decision-making and management decisions. Incorrect data can be found, verified, challenged, and rejected.	[SW4] test/exam - oral or written [SW2] presentation/project/paper/ report
	[ZARZL3_W06] Has advanced knowledge and understanding of the principles of rational decision-making about individual resources, functional areas in the organization, processes, and management levels	he student identifies and explains the need to use appropriate IT tools in the decision-making process. He can calculate, evaluate and vary the results in the analysis of resources, areas and levels of management.	[SW4] test/exam - oral or written [SW2] presentation/project/paper/ report

Subject contents	**Lectures (8 hours):** 1. Introduction to economic informatics, 2. Teleinformatics technologies (including: Computer hardware, Computer networks, Internet of Things) 3. Computer software and programming and Cloud Computing 4. Creating IT systems (including: business process modeling, methodologies for creating IT systems, databases and Big Data) 5. IT project management. Management IT systems 6. Digital economy (including: tools supporting knowledge management, information society, e-business, e-learning, communication and cooperation tools). 7. Advanced techniques for searching for information on the Internet. White intelligence, legality. 8. Public presentations of business data - principles, "good practices", selection of tools 9. CMS tools. Wordpress. Principles of creating websites. Visual identification. Hosting, Administration. Website security. SEO elements. **Labs (24 hours):** **1. Advanced use of MS Excel -12 hours:** • Spreadsheet - principles of working with spreadsheets in solving business problems, optimizing work with large amounts of data, preparing business reports Solving business problems using conditional, date and time, text and financial analysis functions. • Pivot tables and charts based on the data model • Data visualization and creation of dashboards. Automation of work in the spreadsheet, creation of forms, use of macros, advanced data filtering • Solver tool, multidimensional analysis, conditional analysis, scenario manager, optimization of the objective function **2. Visual communication - 4 hours:** • Tools and techniques for effective content delivery. Preparing business reports • Audience interaction tools, graphic elements, infographics, visual notes. Teamwork tools. • Forms, surveys, reports, presentations, stories. Google Forms and Sway application. **3. Advanced information retrieval techniques - 4 hours:** • Sources of information, quality of information, verification of information credibility, • White intelligence on the Internet, WWW browsers, selected web search engines, elements of Google Hacking **4. CMS Systems - 4 hours:** • Acquiring, processing and presenting business data using Internet services • Working with the CMS system. WordPress configuration. Administrative activities. Personalization of appearance. • Content creation. Wordpress management, user management, Plug-in installation.
Prerequisites and co-requisites	Basic computer skills and the ability to use the Internet.

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Visual Communication Project	51.0%	10.0%
WWW Design and Implementation	51.0%	15.0%
MS Excel Project	51.0%	35.0%
MS Word Report on Information	51.0%	15.0%
Lecture test	51.0%	25.0%

Recommended reading	Basic literature	MS Excel based Software Support Tools for Decision Problems with Multiple Criteria Jablonsky,Josef https://www-1sciencedirect-1com-1hcks4gj5001c.hansolo.bg.ug.edu.pl/science/article/pii/S2212567114003426
	Supplementary literature	How to Implement a Trinomial Option Pricing Model in MS-Excel? Journal of accounting and finance, 2021-11, Vol.21 (5) https://research-1ebsco-1com-1wbtebkj5001d.hansolo.bg.ug.edu.pl/c/kxegtv/viewer/pdf/d5mwpdbtar
	eResources addresses	
Example issues/ example questions/ tasks being completed	Credit Analysis. Labor Costs.	
Work placement	Not applicable	

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