

Subject card

Subject name and code	Business Informatics, PG_00155034						
Field of study	Information Science and Econometrics						
Date of commencement of studies	October 2024	Academic year of realisation of subject			2024/2025		
Education level	undergraduate studies	Subject group			Obligatory subject group in the field of study		
Mode of study	part-time studies	Mode of delivery			at the university		
Year of study	1	Language of instruction			Polish		
Semester of study	1	ECTS credits			7.0		
Learning profile	academic	Assessment form					
Conducting unit	Katedra Informatyki Ekonomicznej -> Faculty of Management						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Marek Markowski				
	Teachers		dr Marek Markowski				
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	12.0	0.0	32.0	0.0	0.0	44
	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	44		30.0		105.0	179
Subject objectives	• Teach students how to efficiently and safely use information technologies. • Teach students correct using of information technologies terminology. • Teach students skills in documents, spreadsheet, and presentation development, rules of visual communication by WWW pages development. • Teach students in safe use of Internet, information searching, verification, and using in bussiness problems solving.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[liEL3_W03] The student has advanced knowledge of man as an entity that creates economic structures and institutions.	Understanding of the human role in social and economical systems.	[SW1] oral statement/ conversation/discussion [SW2] presentation/project/paper/ report
	[liEL3_K01] The student understands the need to constantly supplement and deepen acquired knowledge; is open to new ideas and teaching methods.	Understanding of necessity of life-long learning.	[SK1] oral statement/conversation/ discussion [SK2] presentation/project/paper/ report
	[liEL3_K05] The student is aware of the need for ethical, sustainable and socially responsible behavior in professional and social life.	Job and social life regularity and timelines.	[SK5] implementation of a problem task
	[liEL3_K02] The student can communicate with the public on computer science and econometrics topics in and outside the workplace, communicate his knowledge and share his skills through various media.	Effective communication and cooperation in group work.	[SK2] presentation/project/paper/ report [SK5] implementation of a problem task
	[liEL3_U01] The student can comprehensibly, orally and in writing, present and justify advanced economic theories and apply them to explain the functioning of the national economy and its elements. Understands and can explain the content of communications of economic institutions, articles published in the economic press and scientific journals.	Understanding and interpreting of information found in the media and the Internet.	[SU2] presentation/project/paper/ report [SU3] text preparation/written work
	[liEL3_W07] The student has advanced knowledge of ethical norms applicable to business, good practices for its conduct and legal regulations for the protection of intellectual property. Has knowledge of the risks and responsibilities associated with the informatization of business processes, knows the principles of netiquette.	Knowledge in the area of specialization, intellectual property, risk and responsibility in business.	[SW4] test/exam - oral or written [SW2] presentation/project/paper/ report
	[liEL3_U08] The student can configure and apply advanced modern information and communication technologies in the process of business management and business communication.	Configuration and efficient use of used software.	[SU5] implementation of a problem task [SU6] demonstration of practical skills
	[liEL3_W05] The student has advanced knowledge of the sources of socio-economic data, their databases and ways of creating them.	Knowledge in commercial databases area.	[SW2] presentation/project/paper/ report [SW5] implementation of a problem task
	[liEL3_W04] The student has advanced knowledge of mathematical, statistical, econometric and computer methods of obtaining, processing and analysing data depicting the functioning and development of the national economy and its elements, as well as the phenomena and processes occurring in their environment.	Knowledge of databases and mathematical, statistical and computer modelling tools.	[SW4] test/exam - oral or written [SW2] presentation/project/paper/ report
	[liEL3_U02] The student is able to acquire basic information about economic processes and phenomena by direct observation, planned experiment or database queries, and collect and process it using modern information technology tools.	Effective acquisition of data from different sources.	[SU3] text preparation/written work [SU5] implementation of a problem task

Subject contents	Lectures (12 hours): • Propaedeutics of business informatics. • Information technologies (including: Hardware, Software, Internet of Things). • Software, computer programming, Cloud Computing. • Information systems development (including: Business Process Management, Information Systems Development Methodologies, Data Bases and Big Data). • IT project management. Management Information Systems (including: ERP, CRM, BI systems). • Digital Economy (including: Knowledge Management tools, Information Society, e-biznes, e-learning, Computer Supported Cooperative Tools). • Advanced techniques of information searching in Internet. OSINT, legality. • Business data presentation - rules, good practicess, software selection. • Content Management Systems (CMS). Wordpress. WWW pages development. Hosting. Administration. Website security. elements of SEO. Laboratories (32 hours): MS Excel (16 hours) • Spreadsheet (MS Excel) - business problems solving, business dashboards. • Using conditional (IF - Then), date, time, text, financial functions. • Pivot tables and charts. • Data visualisation and dashboards. Automatization, forms creation, advanced filtering of data. • Macro, multiple files connecting, automatic e-mail sending. • Data Base functions in Excel, sorting and filtering, advanced filtering. • Solver, multidimensional analysis, scenario manager, objective function optimization. Visual communication (4 hours) • Tools and techniques of effective content delivery. Business dashboard. • Tools for interaction with the audience, graphics, infographics, visual notes. Teamworks tools. • Forms, surveys, reports, presentations, stories. Google forms and Sway. Advanced techniques of information searching (6 hours) • Information sources, information quality and validation. • Open Source Intelligence (OSINT), Web browsers, Web searchers, Google Hacking elements. • Google Hacking - how to defence yourself? CMS Systems (6 hours) • Acquisition, processing and presentation of business data with use of Internet. • Work with CMS, Wordpress - configuration, administration, personalization. • Content creation. Wordpress - management, users management, plugins instalation. • Widgets, responsiveness.																		
Prerequisites and co-requisites	No requirements.																		
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>Presentation</td><td>51.0%</td><td>10.0%</td></tr><tr><td>WWW development</td><td>51.0%</td><td>15.0%</td></tr><tr><td>Search report</td><td>51.0%</td><td>15.0%</td></tr><tr><td>MS Excel project</td><td>51.0%</td><td>35.0%</td></tr><tr><td>Lecture test</td><td>51.0%</td><td>25.0%</td></tr></table>	Subject passing criteria	Passing threshold	Percentage of the final grade	Presentation	51.0%	10.0%	WWW development	51.0%	15.0%	Search report	51.0%	15.0%	MS Excel project	51.0%	35.0%	Lecture test	51.0%	25.0%
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Recommended reading	Basic literature	Bibliography A.1. Used during lectures and laboratories 1. Materials posted on the Educational Portal 2. Kokpity menedżerskie w analizie i prezentacji danych biznesowych z wykorzystaniem MS Excel 2016, Buchnowska D. (red.), WZ UG 2016, Sopot WZ UG 2016, Sopot https://wzr.ug.edu.pl/nauka/upload/files/Kokpity%20mened%C5%BCerskie%20w%20analizie%20i%20prezentac 3. WolkenbachJ. , Excel 2016 PL Biblia ., Helion, Gliwice 2016 A.2. for individual studing 1. Wrycza S. (red.), Informatyka ekonomiczna. Podręcznik akademicki , PWN Warszawa 2019 2. Masłowski K. , Excel 2016 PL Ćwiczenia zaawansowane , Helion, Gliwice 2016
	Supplementary literature	Recommended bibliography: 1. Alexander M. , Programowanie w VBA. Excel 2016 PL. Vademecum Walkenbacha , Helion, Gliwice 2016
	eResources addresses	Podstawowe https://wzr.ug.edu.pl/nauka/upload/files/Kokpity%20mened%C5%BCerskie%20w%20analizie%20i%20prezentac - Buchnowska D. (red.), WZ UG 2016, Sopot WZ UG 2016, Sopot Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed	MS EXCEL: Create an estimate cost for opening a new business in town X. Serach Report: Property rental report in town X. CMS: Create a prototype of website for your business. Visual communication: Create a presentation that encourages a potential investor to partially finance your new business.	
Work placement	Not applicable	

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