



FACULTY: *Economic and Social Sciences*
COURSE: *Economics*
LEVEL OF EDUCATION: *first-level studies (bachelor)*
FORM OF EDUCATION: *full-time*
PROFILE: *practical*

SUBJECT CARD (Syllabus)

Subject Name: Information Technology				ECTS credits: 4	
Lecturer: according to the list of lecturers and the schedule of classes					
Year: 1	Lectures	Conversation classes	Laboratory exercises Exercise	BUNA*	Form of credit*
Semester: 1	9	0	24	12	E/Z
* E – exam; Z – credit; ZO – passing with a grade, BUNA – without the participation of an academic teacher					
Purpose of the course: <i>familiarization with the basic concepts and construction of computers, computer software, information technology, wide area networks and information systems functioning in economic organizations and institutions; developing knowledge, skills and social competences learned from previous educational stages in the field of multimedia applications in business, preparing students for the use of modern information technologies and their practical application.</i>					
Didactic methods: <i>information lecture(conventional) and situational, practice part based on the use of various sources of knowledge (film, photographs, archival materials, statistical yearbooks, maps, Internet, etc.), project method, case study.</i>					
Prerequisites: <i>computer use in the field of text, calculation, graphic, sound editors; actively participate in conversations, perform recommended tasks to solve on your own.</i>					
No	Subject matter of the classes				
I	LECTURE: 1. Development of the software production sector: history, organization of the ICT sector, economic consequences, mass software, Open Source software, legal protection of computer programs. 2. Information, data, information processing, data representation. 3. Introduction to relational databases. Trends in database development: NOSQL databases. Data warehouses. 4. Electronic documents. Visual and structured formatting. XML, HTML. 5. Internet, network services, tools for exploring information contained in networks, the possibilities of using the Internet. Software as service (SaaS). Internet of Things. An overview of selected services available in the SaaS model.				
II	CONVERSATIONS: not applicable				
III	LABORATORY EXERCISES: 1. Edit text documents in a typical office package. Defining the document structure and automating work (defining styles, automatic chapter numbering, generating a table of contents, etc.). 2. Create spreadsheets in a typical office suite. Describe calculations by using formulas. Typical worksheet functions (sum, if, search vertically, etc.). Create charts. PivotTables. 3. Create a presentation in a typical office program. 4. Use of selected services available in the SaaS model (GoogleDocs).				
IV	EXERCISES: not applicable				
V	BUNA: Action on a spreadsheet – calculation, graphic presentations, association with a text editor, transfer of data to a multimedia presentation				



Learning outcomes

Directional effects – symbol and specification			Objective effects – specification
in the field of <u>KNOWLEDGE</u>:			
P6U_W	P6S_WG	E1_W01 Has a comprehensive knowledge of the place of economics in the system of sciences, its character, methodology and related to other scientific disciplines, knows and understands the basic terminology of economic sciences along with the application of this practical knowledge in business activities.	<p>Knows the methods and IT tools appropriate for the scientific discipline of economics used to obtain data from primary and secondary sources, allowing to analyze and interpret phenomena, processes, entities, structures and activities of organizations.</p> <p>Knows and understands the basic concepts related to the use of computers, operating system, office suite including: word processor, spreadsheet, database. Has knowledge of the usefulness and essence of IT support for entrepreneurship.</p> <p>Uses knowledge in the field of the scientific discipline of economics in the context of the functioning of the organization in the network and the visual identification of the company in the digital space. Has the necessary knowledge, thanks to which can adjust the selected information technology tool to perform tasks more effectively.</p> <p>Knows and understands advanced concepts related to the use of computers, operating system, office suite including: word processor, spreadsheet, database. Has knowledge of the functioning of the local and global computer network and services available on the Internet. Has knowledge of the safe use of the computer and the use of resources available on the network.</p>
P6U_W	P6S_WG P6S_WK	E1_W02 Knows and understands economic conditions, forms and standards, as well as phenomena and processes related to the market. Has knowledge of economic structures and institutions, as well as their elements, characteristics and development.	
P6U_W	P6S_WG	E1_W12 Has advanced knowledge of modern information and information systems and techniques and the possibilities of their use in accordance with the studied direction in practice.	
P6U_W	P6S_WG	E1_W04 Knows and understands at an advanced level the application of selected mathematical, statistical methods and IT tools for the collection, analysis and presentation of economic and social data and their practical application in professional activities.	
in terms of <u>SKILLS</u>:			
P6U_U	P6S_UW	E1_U02 Is able to use theoretical knowledge and effectively and effectively obtain reliable data from primary and secondary sources to analyze specific economic processes and phenomena in	Is able to take an active part (as a collaborator or leader) in the analysis and evaluation of alternative solutions to IT and economic problems and choose methods and instruments (programs) that allow them to be practically implemented.



		the field of economic disciplines.	
P6U_U	P6S_UW	E1_U03 Is able to properly analyze and prepare accounting and financial documentation for decision-making and accounting purposes and analyze and evaluate the economic and social processes and phenomena taking place.	Has the ability to observe, understand and analyze phenomena in the real and virtual world, document and improve the economic process using appropriate IT tools (programs).
P6U_U	P6S_UK P6S_UO	E1_U04 Communicates efficiently using terminology from the field of economic and related sciences both in a team of employees and use the advice of specialists from various fields of knowledge. Is able to present his/her own ideas and views attractively and convincingly.	Has the ability to prepare and implement oral presentations appropriate to the subject and detailed issues regarding the possibility of using information technologies in the activities of market entities.
P6U_U	P6S_UWP6S_UOP6S_UU	E1_U06 Is able to independently plan and implement their own learning, being aware of the dynamic development of sciences, using the acquired economic knowledge and practical conclusions and specialist experience in independent implementation of tasks, as	Has the ability to prepare in electronic form typical works on detailed issues, using the principles of data collection, their description and interpretation, as well as inference supported by basic software office suites.



		well as running a business and solving the dilemmas of professional work.	
in the field of SOCIAL COMPETENCES:			
P6U_K	P6S_KKP6S_KR	E1_K01 Is ready to critically assess the level of their knowledge; recognizes the importance of knowledge in solving cognitive and practical problems and seeks the opinion of experts in case of difficulty in solving the problem on their own.	Independently improves the acquired knowledge using specific tools and using information technology. Sees new development opportunities as well as its potential threats and is able to develop research competence and manage professional career in an original way. Is able to actively cooperate in task forces in direct and virtual contact (also of an international nature). The student is able to cooperate and work in a group by taking on different roles in it. Presents arguments using modern technologies, presenting content that is lawful and respects the dignity of the recipients. In the variability of the environment adapts the methods of interaction to a given society.
P6U_K	P6S_KOP6S_KR	E1_K02 Able to actively cooperate in teams, including international ones, and take on various roles with respect for social, cultural and legal norms, and perform responsible roles in the team, being aware of the decisions he makes, and also takes responsibility for the results of his work and the whole team.	
P6U_K	P6S_KO P6S_KR	E1_K06 Is able to think in an entrepreneurial way and skillfully communicate with the environment; adapts to new situations and conditions, acquires resistance to failure and stress.	

Ways to verify the outcome of this learning (*KNOWLEDGE, SKILLS, SOCIAL COMPETENCES*)

Effects(symbol)	Written exam	Oral exam	Colloquium	Essay/Paper	Homework	Individual presentation	Group presentation	Activity in class	Participation in the discussion	Individual project	Group project
E1_W01, E1_W02, E1_W12, E1_W4	X				X			X			X
E1_U02... 04, E1_U06	X				X			X	X		X



E1_K01, E1_K02, E1_K06									X			X
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Form and conditions of passing the subject: realization of project (independently / group), passing based on practical tasks discussed during classes, exam in written form - issues of a closed and open interpretative nature.

The student's workload needed to achieve learning outcomes in hours and ECTS credits	
Contact hours with an academic teacher	
Types of classes	Number of hours
Participation in lectures	9
Participation in seminars	
Participation in exercises	24
Participation in laboratory classes	
Consultations (2 hours for the lecture, 1 hour for one training group, conv., sem.)	
Sum of	33
Student's own work divided into time (examples of student work forms)	
Form of student work	Number of hours
Preparing for classes	21
Writing a paper/project/essay	
Gathering materials and preparing presentations	21
Self-reading	30
Preparing for colloquia/tests	15
Preparing for the written/oral exam in a subject	15
Preparation for written/oral credit in a subject	
Sum of	96
Total (contact hours + student's own work)	120
	4 ECTS
1.including the number of ECTS credits for contact hours with the direct participation of an academic teacher	1 ECTS
2.including the number of ECTS credits for hours carried out in the form of independent work	3 ECTS
Classes with a practical profile	
Types of classes	Number of hours
Participation in laboratory exercises	12
Preparing for practical credit	108
Sum of	120
Number of ECTS credits for practical classes	4 ECTS

Basic literature: (up to 3 items)

1. M. Pańkowska (ed.), Economics and Management in Information Technology Context (ebook), Wydawnictwo Uniwersytetu Ekonomicznego w Katowicach, Katowice 2017.
2. D. S. A. Ramya, Fundamentals of Information Technology, MJP Publisher, [Chennai] 2023.
3. H. Overby, J. A. Audestad, Introduction to Digital Economics: Foundations, Business Models and Case Studies, Springer, [Berlin] 2023.

Supplementing literature:

1. S. Guldenberg, E. Ernst, Managing Work in the Digital Economy, Springer, [Berlin] 2022.
2. Y. G. Buchaev, A. S. Abdulkadyrov, J. V. Ragulina, A.A. Khachatryan, E. G. Popkova (ed.), Challengers of the Modern Economy: Digital Technologies, Problems, and Focus Areas of the Sustainable Development of Country and Regions, Springer, [Berlin] 2023.

Acceptance of the Vice-Rector: