MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
SUMY NATIONAL AGRARIAN UNIVERSITY

Faculty of Economics and Management
Department of Management named after Professor L.I. Mykhailova

MODULE SYLLABUS

Information professional technologies

(compulsory/optional)

Implemented within the framework of the educational programmer **Management**
(name)

in the speciality 073 «Management»
(code, title)

at the first (bachelor's) level of higher education

Sumy-2024

Author: _____ (Liudmyla MOHYLNA, PhD, Associate Professor)

Module syllabus agreed at the Department of Management named after Professor L.I. Mykhailova	Minutes No17 dated 18.06.2024
	Head Department of Management named after Professor L.I. Mykhailova _____ (Alvina ORIEKHOVA)

Approved by:

Guarantor of the Academic program _____ (Natalia STOYANETS)

Dean of the Faculty _____ (Maryaryta LYSHENKO)

Syllabus review (attached) is provided by : _____ (V. Thachenko)

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Representative of the Department of Education Quality assurance, licensing and accreditation _____ (N. Barenie)

Registered in electronic data base 18.06. 2024

Syllabus review data:

The academic year in which changes are made	The Academic program attachment number with changes description	Changes revised and approved		
		Minutes No and date of the department meeting	Head of Department	Guarantor of the Academic program

1. MODULE OVERVIEW

1.	Title	Information professional technologies			
2.	Faculty/Department	Faculty of Economics and Management/ Department of Management named after Professor L.I. Mykhailova			
3.	Type (compulsory or optional)	Compulsory			
4.	Program(s) to which module is attached (to be filled in for compulsory types)	«Management» Academic Program, area of specialization 073 «Management»			
5.	Module can be suggested for (to be filled in for optional types)				
6.	Level of the National Qualifications Framework	NQF of Ukraine - level 6, FQ-EHEA - first cycle, EQF-LLL - level 6.			
7.	Semester and duration of module	4 semester, 15 weeks			
8.	ECTS credits number	5			
9.	Total workload and time allotment	Directed study			Self-directed study
		Lectures	Practicals	Labs	
		44	30		76
10.	Language of instruction	English			
11.	Module leader	Mohylna Liudmyla – Ph.D., Associate Professor, Associate Professor at the Department of Management named after Professor L.I. Mykhailova Hours of consultations - every Tuesday at 12.15, room 303 e			
12.	Module leader contact information	Farafonova_L@ukr.net			
13.	Module description	The educational component «Information professional technologies» contributes to future management bachelors obtaining an appropriate level of theoretical knowledge, the formation and development of special skills, practical skills in the development and use of modern information technologies for the effective implementation of management activities, to create and organize effective communications in various areas of the organization's activities.			
14.	Module aim	Purpose: formation of future managers' knowledge and skills regarding modern information technologies, their rational use, as well as practical skills of effective use of information technologies to solve professional tasks in the process of performing managerial activities, when working with office documents.			
15.	Module Dependencies (prerequisites, co-requisites, incompatible modules)	The educational component is based on basic knowledge of the educational component (ECs) «Informatics and computer technology». The educational component is the basis for studying the ECs "Self-Management".			
16.	The policy of academic integrity	Compliance with academic integrity by higher education applicants involves the independent completion of academic tasks, tasks of current and final control, learning outcomes. Applicants for higher education are expected to adhere to the principles of			

		academic integrity, being aware of the consequences of its violation, which is determined by the regulatory documents of Sumy National Agrarian University, in particular the Code of Academic Integrity, the Regulations on the Prevention and Detection of Academic Plagiarism at Sumy NAU (a complete list of regulatory documents is available on the university website https://snau.edu.ua/viddil-zabezpechennya-yakosti-osviti/zabezpechennya-yakosti-osviti/akademichna-dobrochesnist/). It is unacceptable for higher education students: - When performing tests and theoretical surveys, use sources of information (oral (hints), written (works of other persons), printed (books, manuals), electronic (phones, tablets), not allowed by the teacher. For the use of telephones and computer facilities without the permission of the teacher due to violation of discipline, the higher education student receives 0 points for the lesson and is obliged to work out such a lesson. - Cheating during tests is prohibited. Mobile devices are allowed to be used only during online testing. When working on assignments, no violation of academic integrity is allowed: when using Internet resources and other sources of information, a higher education student must indicate the source used to complete the assignment.
17	Link in Moodle	https://cdn.snau.edu.ua/moodle/course/view.php?id=5135

2. CORRELATION BETWEEN MODULE LEARNING OUTCOMES (MLOs) AND PROGRAM LEARNING OUTCOMES (PLOs)

MLOs: On successful completion of the module the learner will be able to:	**PLOs**		**How assessed**
	PLO 6	**PLO** 19	
MLOs 1 Understand the acquired theoretical base regarding the concept, place, stages and modern directions of development of information technologies in management learn successfully use it in practice.	x	x	Theoretical knowledge - tests, surveys
MLOs 2 Identify the company's information needs for external and internal information, necessary for making management decisions; to form the information, technical and software support of the information system of the enterprise, to assess the feasibility of implementing or improving the latest information technologies.	x		Defense of practical tasks
MLOs 3 Use a variety of test and graphic editors to design results in everyday professional activities.		x	Defense of situational tasks
MLOs 4 To demonstrate the skills of using standard software and technical tools and original software products aimed at solving management tasks when making management decisions.		x	Defense of practical tasks
MLOs 5 Solve complex practical tasks in the field of management, which involves substantiating economic efficiency, developing a sufficient number of alternative options, choosing the optimal solution and taking responsibility for their implementation.		x	Defense of practical tasks

3. MODULE INDICATIVE CONTENT

Topics	Distribution of hours				Learning resources
	Directed study			Self-directed study	
	Lectures	Practicals	Labs		
Topic 1 Information as the basis of modern technologies 1 The concept of information, the relationship between the concepts of "information" and "data". 2 The concept of information and information culture. Properties of information and requirements for it. 3 Structuring and formalized presentation of information. 4 Information resources as an object of information technology application. 5 The current state of informatization in Ukraine.	2	2		3	Base: 1-3. Guidelines: 1-4. Additional resources: 5, 13.
Topic 2 Information technologies in management: definition, stages of development and classification 1 Concept of information technology. 2 History of the development of computer technology and IT. 3 Stages of technology development. 4 General characteristics of the main types of information technology. 5 Information procedures, stages of economic information processing 6 Classification of information technologies for computer modeling of complex systems. 7 Competitive advantages of enterprises using information technologies. 8 The importance of using information technology in the management of an organization for business.	2	-		3	Base: 1-3. Guidelines: 1-4. Additional resources: 3, 4, 5.
Topic 3 General provisions of information systems 1 The concept of an information system. 2 Classification of information systems. 3 Structure of information systems.	2	-		3	Base: 1-3. Guidelines: 1-4. Additional resources: 3, 4, 5.

4 Organizational and methodological foundations for the creation and implementation of information systems. 5 Evaluation of the economic efficiency of information systems. 6 Security of information systems.					
Topic 4 Internet technologies in enterprise activity 1 Internet technologies in management 2 Search engines. Overview of popular search engines. Formulation of search queries. 2 Internet commerce. 3 Interactive marketing. 4 Virtual enterprises 5 Blockchain technologies	2	2		3	Base: 1-3. Guidelines: 1-4. Additional resources: 9, 10, 17.
Topic 5 Application software of the manager's workstation 1 Classification of application software. 2 Classes of application software 3 Overview of the software of the manager's office software packages. Composition and purpose of components.	2	-		4	Base: 1-3. Guidelines: 1-4. Additional resources: 9, 10, 17.
Topic 6 Information technologies for processing text information in the work of a manager 1 Text editors. Purpose and capabilities of text editors. 2 Word processor and its functions. 3 Technologies of document generation. 4 Characteristics of modern electronic document management systems. 5 Documents: tools for editing and formatting documents by a manager. Interface of the Microsoft Word text editor. 6 Working with documents of complex structure, printing text design using templates and styles.	4	4		4	Base: 1-3. Guidelines: 1-4. Additional resources: 3, 7.
Topic 7 Electronic document management systems 1 The concept of an electronic document for management activities. 2 Formats of electronic documents 3 Electronic office. Information technologies for office automation. 4 Programs for working with text	2	2		4	Base: 1-3. Guidelines: 1-4. Additional resources: 3, 7.

documents. 5 Preparation of business documents by a manager.					
Topic 8 Information technologies for processing of economic information 1 Characteristics and classification of technological operations 2 Technological processes of automated processing of economic information. 3 Information procedures, stages of economic information processing 4 The concept of information technology and its classification. 5 Computer systems and networks	2	-		4	Base: 1-3. Guidelines: 1-4. Additional resources: 1, 7, 12.
Topic 9 Systems of tabular data processing 1 Development of templates for dynamic tables with economic information. 2 Application of spreadsheets for database management. 3 Technologies of statistical data analysis. 4 Modeling of economic systems.	2	2		4	Base: 1-3. Guidelines: 1-4. Additional resources: 1, 12.
Topic 10 Information technologies for solving economic problems (economic problems in the MS Excel environment). 1 Spreadsheets. 2 Technology of tabular information processing: organization of calculations, basic operations with data, intermediate results, pivot tables, data analysis, solution search, graphical representation of results. 3 Explanation of the use of built-in MS Excel functions. 4 Organize collaboration with spreadsheets in the cloud	4	2		4	Base: 1-3. Guidelines: 1-4. Additional resources: 1, 12.
Topic 11 Using built-in spreadsheet functions to develop forecasting studies for making management decisions. Analyzing time series and calculating a trend line in MS Excel. 1 Statement of the problem. 2 Mathematical model of the problem. 3 Determination of the trend line. Graphical representation of the	2	6		4	Base: 1-3. Guidelines: 1-4. Additional resources: 1, 3, 12, 16.

trend line. 4 Analysis of the results.					
Topic 12 General principles of creating multimedia presentations and slide shows 1 The concept of computer presentations, their purpose. 2 Creating, opening and saving a presentation. 3 Creating text labels and inserting graphic images. 4 Principles of presentation styling. 5 Add animation effects to slide objects. Demonstrate presentations and set up presentation time.	2	2		4	Base: 1-3. Guidelines: 1-4. Additional resources: 3, 4, 16.
Topic 13 Structure and principles of cloud data storage 1 Theoretical information about cloud technologies. 2 Architecture and offers from leading cloud service providers 3 Features of using the structure of cloud data storage. 4 Cloud services as a replacement for office applications 5 Experience of using cloud technologies abroad 6 Creating online surveys using cloud technologies	2	2		4	Base: 1-3. Guidelines: 1-4. Additional resources3, 4.
Topic 14 Digital tools for manager-administrator teamwork 1 Working in a group as a participant depending on the dominant type of behavior in the team, forming your own contribution to the team's tasks. 2 Skills of a digital manager. Important for effective teamwork. 3 Using Microsoft Office 365 and Google cloud services for teamwork. 4 Advantages of using cloud services in the process of teamwork. 5 Planning work using cloud services (WiseMapping, Lucidchart, draw.io). 6 Common tools for online meetings (Cisco Webex Meeting, Skype, Google Hangouts Meet, Zoom). 7 Online whiteboards for	2	2		4	Base: 1-3. Guidelines: 1-4. Additional resources: 3, 4.

discussing collective projects (Conceptboard, Planner, Miro, Whiteboard).					
Topic 15 Strategic models of information systems application in management 1 Classification of management information systems by completeness of functions management. 2 Strategic models of enterprise management. 3 Material resource planning systems (MRP). 4 Production resource planning systems (MRP II). 5 Enterprise resource planning systems (ERP). 6 Customer-synchronized resource planning systems (CSRP). 7 Advanced planning systems (APS). 8 Corporate information system R/3. 9 Supply chain integration systems SCI. 10 Customer relationship management systems CRM. 11 Features of information systems for multinational corporations (MNCs). Organizational structure of corporations. 12 Requirements for the design and implementation of information systems of MNCs. Integrated information system for managing MNC R/3.	2	-		4	Base: 1-3. Guidelines: 1-4. Additional resources: 10, 17.
Topic 16 ERP-systems. 1 Evolution of ERP systems. 2 Features of the use of ERP systems. 3 Basic principles of choosing an ERP system. 4 Composition of ERP systems. 5 The main functions of ERP systems. 6 Advantages and disadvantages of ERP systems. 7 Overview of modern ERP systems.	2	-		4	Base: 1-3. Guidelines: 1-4. Additional resources: 10, 17.
Topic 17 Organization of security when working with a computer on the Internet. Information resources of the global Internet	2	2		4	Base: 1-3. Guidelines: 1-4. Additional resources: 3, 4.

1 Basic concepts of information and communication technology security Information security 2 Causes of system vulnerability and types of threats. 3 Modern authorization systems (digital, graphic and other) 4 Network screens, firewalls 5 Information archiving. 6 Methods of information protection. 7 Cybercrime. 8 Authentication and authorization of PC users. 9 Electronic banking. 10 Online shopping. 11 Cryptography and encryption of information. 12 The relationship of e-commerce with consumer behavior, business processes and competition. 13 Retail sales on the Web site. 14 Electronic payments and security.					
Topic 18 Technologies for ensuring the security of information systems. 1 Components of security 2 Threats to availability 3 Software antiviruses. 4 Legal regulation of the information sphere. 5 Blockchain technology and information security	2	2		4	Base: 1-3. Guidelines: 1-4. Additional resources: 3, 4.
Topic 19 Models in decision support systems 1 Concept and components of decision support systems 2 Model databases and model database management systems 3 Modeling situations requiring decision-making. Correspondence of certain models to certain types of situations 4 General types of problems that can be solved by model-based DSS. Types of models. 5 The use of artificial intelligence for making managerial decisions.	2	-		4	Base: 1-3. Guidelines: 1-4. Additional resources: 3, 4.
Topic 20 The essence and problems of artificial intelligence 1 The concept of artificial intelligence	2	-		4	Base: 1-3. Guidelines: 1-4. Additional resources: 3, 4.

2. Areas of application of artificial intelligence methods: proofs of informal theorems and solving problems with fuzzy logic, game theory, research of game situations, pattern recognition, adaptive programming, simulation of creative activity, training of systems based on neural networks, control systems and robotics, construction of specialized information systems for business support. 3. Models that use neural networks. Artificial neural networks. 4. Training of an artificial neural network.					
Total	44	30		76	

4. TEACHING AND LEARNING METHODS

MLOs	Teaching methods (directed study)	Learning methods (self-directed study)
MLOs 1. Understand the acquired theoretical base regarding the concept, place, stages and modern directions of development of information technologies in management learn successfully use it in practice.	Interactive lectures, thematic discussions, solving situational tasks. Interactive learning technologies (for example, the use of multimedia technologies, case studies (a method of analyzing specific situations).	Express surveys of higher education students, oral surveys, testing, use of training and control tests, use of reference lecture notes, etc.
MLOs 2. Identify the company's information needs for external and internal information, necessary for making management decisions; to form the information, technical and software support of the information system of the enterprise, to assess the feasibility of implementing or improving the latest information technologies.	Verbal methods: lecture, explanation, thematic discussion, analysis of specific situations (case-study). Visual methods: use of multimedia technologies. Practical methods: practical calculation and analytical tasks.	Independent work with the textbook, with lecture notes in the Moodle system, solving problems, using educational and control tests.
MLOs 3. Use a variety of test and graphic editors to design results in everyday professional activities.	Verbal methods: lecture, explanation, thematic discussion, analysis of specific situations (case-study). Visual methods: use of multimedia technologies. Practical methods: practical calculation and analytical tasks.	Independent work with the textbook, with lecture notes in the Moodle system, solving problems, using educational and control tests.

MLOs 4. To demonstrate the skills of using standard software and technical tools and original software products aimed at solving management tasks when making management decisions.	Verbal methods: lecture, explanation, thematic discussion, analysis of specific situations (case-study). Visual methods: use of multimedia technologies. Practical methods: practical calculation and analytical tasks.	Independent work with the textbook, with lecture notes in the Moodle system, solving problems, using educational and control tests.
MLOs 5. Solve complex practical tasks in the field of management, which involves substantiating economic efficiency, developing a sufficient number of alternative options, choosing the optimal solution and taking responsibility for their implementation.	Verbal methods: lecture, explanation, thematic discussion, analysis of specific situations (case-study). Visual methods: use of multimedia technologies. Practical methods: practical calculation and analytical tasks.	Independent work with the textbook, with lecture notes in the Moodle system, solving problems, using educational and control tests.

5. ASSESSMENT

5.1. Diagnostic assessment

5.2. Summative assessment

5.2.1. Intended learning outcomes methods:

No	Summative assessment methods	Grades	Deadline
1.	Theoretical section of knowledge: Oral questioning or testing on each topic (for each correct answer 1 point) for the first and second milestone control The maximum score for the first theoretical milestone control is 15 points The maximum score for the second theoretical milestone control is 15 points	30 points / 30%	At week 7, on the 15 week
2.	Solving practical problems on course topics	20 points/20%	According to the schedule of practical classes by the end of week 7, 15
3.	Solving situational tasks on course topics	20 points / 20%	According to the schedule of practical classes by the end of week 7, 15
	TOTAL	70 points / 70%	Week 15
4.	The exam	*30* points */ 30%*	According to the approved schedule

5.2.2. Grading criteria

Summative assessment method	Unsatisfactory	Satisfactory	Good	Excellent
Theoretical section of knowledge: Oral questioning or testing on each topic (for each correct answer 1 point) for the first and second milestone control The maximum score for the first theoretical milestone control is 15 points The maximum score for the second theoretical milestone control is 15 points	*<18 points*	*18-21 points*	*22-26 points*	*27-30 points*
	The higher education applicant has some theoretical elements of the course. There is no integrity of understanding of the theoretical material.	*The higher education applicant has mastered the basic theoretical material provided by the program of the discipline, which are minimally acceptable. Understands the main provisions, but makes a significant number of inaccuracies and gross errors that can be eliminated with the help of the teacher.*	*The higher education applicant demonstrates good knowledge, has a good command of the material that corresponds to the program of the discipline, but makes some inaccuracies.*	*The higher education applicant demonstrates a complete and solid knowledge of theoretical material in the amount that corresponds to the program of the discipline.*
Solving practical problems on course topics	*<12 points*	*12-15 points*	*15-18 points*	*18-20 points*
	The requirements of the assignment are not fulfilled	*Most of the requirements are met, but some components are missing or insufficiently disclosed, there is no analysis of other approaches to the issue*	*All requirements of the task are fulfilled*	*All the requirements of the task are fulfilled, creativity, thoughtfulness are demonstrated, and the student offers his/her own solution to the problem*
Solving situational tasks on course topics	*<12 points*	*12-15 points*	*15-18 points*	*18-20 points*
	The requirements of the assignment are not fulfilled	*Most of the requirements are met, but some components are missing or insufficiently disclosed, there is no analysis of other approaches to the issue*	*All requirements of the task are fulfilled*	*All the requirements of the task are fulfilled, creativity, thoughtfulness are demonstrated, and the student offers his/her own solution to the problem*
Exam	*<18 points*	*18-23 points*	*24-27 points*	*28-30 points*
	Task requirements not met	*Most of the requirements are met, but individual components are missing or insufficiently disclosed, there is no analysis of other approaches to the issue*	*All requirements of the task have been fulfilled*	*All the requirements of the task were met, creativity, thoughtfulness was demonstrated, and an own solution to the problem was proposed*

5.3. Formative assessment

Formative exercises are designed to enable students to develop particular aspects of their learning, prior to summative assessments. Formative exercises are designed to help students use feedback and self-reflection to manage and develop their learning so that they can see how to improve their work.

No	Formative Assessment elements	Date
1	Survey and oral comments from the teacher on its results	On weeks 3, 5, 9, 12, 15
2	Self-assessment of current testing	On the 7th week, on the 15th week
3	Teacher's instructions in the process of performing practical calculation tasks	On each practical lesson
4	Discussion and self-correction of completed homework by students	Each practical lesson
5	Solving situational tasks	On each lesson
6	Verbal feedback from the teacher and higher education students on the performance of practical tasks	By the end of 7 and 15 weeks
7	Oral feedback from the teacher and students on the performance of situational tasks	By the end of 7 and 15 weeks

6 LEARNING RESOURCES

6.1 Base

1 Andreas Graesser. Run IT: Dominating Information Technology (Management for Professionals). Springer; 1st ed. 2019 Edition, 2019. 319 p.

2 Erik Dafforn. In formation Technology (IT) Professionals: A Practical Career Guide. Rowman & Littlefield Publishers. January 15, 2020. 130 p.

3 Efraim Turban, Carol Pollard, Gregory Wood. Information Technology for Management: Driving Digital Transformation to Increase Local and Global Performance, Growth and Sustainability. Wiley; 12th Edition. 2021. 640 p.

6.2 Guidelines

1 Information professional technologies. Synopsis of lecture for acquirers of the first (bachelor's) level of higher education of the 2nd year full-time of the specialty 073 «Management»/ Mohylna L.M Sumy, 2024. 104 p. (Minutes No. 5 of 02/23/2024.)

2 Information professional technologies. Methodological recommendations for conducting practical classes for acquirers of the first (bachelor's) level of higher education of the 2nd year full-time of the specialty 073 «Management»/ Mohylna L.M Sumy, 2023. 82 p. (Minutes No. 3 of 11/21/23).

3 Information professional technologies. Methodical instructions for independent work and the performance of individual tasks for acquirers of the first (bachelor's) level of higher education of the 2nd year full-time of the specialty 073 «Management»/ Mohylna L.M Sumy, 2023. 43 p. (Minutes No. 3 of 11/21/23).

4 Mohylna L. Information professional technologies. E-course in Moodle. URL: https://cdn.snau.edu.ua/moodle/course/view.php?id=5135.

6.3 Additional resources

1 Benjamin Zeldovich. Excel 2022: Dominate Microsoft Excel & Master the 101 Most Popular Formulas from Scratch. Become a Pro in 5 Minutes a Day with Practical and Step-by-Step Tutorials. Kindle Edition, 2022. 142 p.

2 Carol V. Brown, Daniel W. DeHayes, Jeffrey Slater, Wainright E. Martin. Managing Information Technology. Pearson; 7th Edition. 744 p. URL: https://www.academia.edu/43658549/Managing_Information_Technology_7th_Edition_by_Carol_V_Brown_Daniel_W_DeHayes_Jeffrey_Slater_Wainright_E_Martin.

3 Eric Frick. Information Technology Essentials Volume 1: Introduction to Information Systems. Kindle Edition, 2019. 275 p.

4 Eric Frick. Information Technology Essentials Volume 2: The Beginner's Guide to C#. Kindle Edition, 2020. 277 p.

5 Geoff Williams, Michael May. The Facility Manager's Guide to Information Technology: Learning Series - Module 1 Kindle Edition, 2021. 64 p.

6 Hunter Muller. Future State 2025: How Top Technology Executives Disrupt and Drive Success in the Digital Economy. Wiley; 1st Edition, 2020. 320 p.

7 James Holler. Microsoft Office 365 for Beginners 2022: [8 in 1] The Most Updated All-in-One Guide from Beginner to Advanced | Including Excel, Word, PowerPoint, OneNote, OneDrive, Outlook, Teams and Access Kindle Edition, 2022. 587 p.

8 Jeremy L. Boerger. Rethinking Information Technology Asset Management. Business Expert Press, 2021. 150 p.

9 Kenneth Laudon, Jane Laudon. Management Information Systems: Managing the Digital Firm 16th Edition. Pearson; 16th Edition, 2020. 656 p.

10 Kiet Huynh. Introduction to Enterprise Resource Planning (ERP) Systems: Streamlining Operations, Enhancing Efficiency, and Driving Growth. Kindle Edition. 2024. 103 p.

11 Litmux Books. Information Systems: How Application Of Big Data Drives Industries. The Real Work of Information Systems. Kindle Edition. Litmux.com, 2021. 85 p.

12 Mike Wang. EXCEL 2022: The All In One Step-by-Step Guide From Beginner To Expert. Discover Easy Excel Tips & Tricks to Master the Essential Functions, Formulas & Shortcuts to Save Time & Simplify Your Job. Independently published, 2022. 158 p.

13 Mohylna L. Innovative system of personnel training and management in vocational education institutions based on digital transformation. *Економіка та суспільство*. 2023. № 51. URL: https://economyandsociety.in.ua/index.php/journal/article/view/2507. DOI: 10.32782/2524-0072/2023-51-55 (дата звернення: 02.06.24).

14 Nawal Chemma, Mohammed El Amine Abdelli, Anjali Awasthi, Emmanuel Mogaji. Management and Information Technology in the Digital Era: Challenges and Perspectives. Emerald Publishing Limited, 2022. 336 p.

15 Newton A.J. Start a Successful Career Today in Information Technology: Computer Science. Independent Publishing Network, 2021. 162 p.

16 Robert Karamagi. Information Technology Entrepreneurship and Management. Kindle Edition, 2021. 262 p.

17 Tamaro Green. Big Data Analytics in Information Technology Management. TJG Web Services, 2020. 62 p.

6.4 Software

1 Use of standard Microsoft packages: Word, Excel, PowerPoint.

2 Multimedia, video and sound reproduction, projection equipment (video cameras, projectors, screens).

3 Zoom Video Communications, Inc. v. 5.6.1 software - for organizing training via video communication (if necessary).

4 Moodle distance learning system software - for organizing distance learning for higher education students (access to teaching materials, communication with the teacher, various types of assessment).

5 Web 2.0 software: Google Cloud & Docs - for providing teaching materials, communication with higher education students, performing individual tasks and posting tasks.