

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

Management in the digital economy

(compulsory/optional)

Implemented within the framework of the educational programme Management
(name)

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

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

Sumy-2024

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Module syllabus agreed at the Department of Management named after Professor L.I. Mykhailova	Minutes No <u>17</u> dated <u>18.06.2024</u>
	Head Department of Management named after Professor L.I. Mykhailova <u><i>Alvina Oriekhova</i></u> (Alvina ORIEKHOVA)

Approved by:

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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	Management in the digital economy		
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	8 semester, 12 weeks		
8.	ECTS credits number	5		
9.	Total workload and time allotment	Directed study		Self-directed study
		Lectures	Practicals	Labs
		12	12	126
10.	Language of instruction	English		
11.	Module leader	Liudmyla Mohylna - 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 "Management in the digital economy" is aimed at providing higher education students with comprehensive knowledge and practical skills necessary for effective management of organizations in a rapidly changing digital environment. The focus is on the integration of the latest digital technologies into management practice to increase the efficiency, transparency and responsiveness of organizations.		
14.	Module aim	Objective: is to provide higher education students with the necessary competencies for successful leadership in the digital economy, preparing them for modern challenges and opportunities arising from the development of new digital technologies.		
15.	Module Dependencies (prerequisites, co-requisites, incompatible modules)	1. The educational component is based on the following ECs: "Management", "International Economic Relations", "FEA Management". 2. The educational component is the basis for the following ECs: "Strategic 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		

		<p>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/).</p> <p>It is unacceptable for higher education students:</p> <ul style="list-style-type: none"> - 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=5814

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
	PLOs ₃	PLOs ₆	PLOs ₈	PLOs ₁₆	PLOs ₁₇	PLOs ₁₉	
MLOs 1 Understand the basic concepts, principles and tools of digital management.	x						Theoretical knowledge - tests, surveys
MLOs 2 Use modern digital technologies such as Internet technologies, blockchain, electronic document management systems and artificial intelligence to optimize business processes and management decisions		x			x	x	Solving situational problems, preparing a report with a presentation
MLOs 3 Analyze the impact of digitalization on various aspects of business and society, and assess potential risks and opportunities for improved governance arising in the digital economy				x			Solving situational problems, individual assignment
MLOs 4 Use the basics of information security and have the skills to implement data protection methods in digital management systems, including e-government systems						x	Solving situational problems
MLOs 5 Communicate effectively in the digital environment, following the rules of digital etiquette in business communications, and use digital tools for collaboration, information exchange and personnel management			x				Solving situational problems

PLOs₃ – Demonstrate the knowledge of theories, methods and functions of management, modern leadership concepts.

PLOs₆ – To identify search skills, collecting and analyzing information, calculation of indicators for substantiation of managerial decisions.

PLOs₈ – Apply management methods to ensure the effectiveness of the organization.

PLOs₁₆ – Demonstrate self-work skills, flexible thinking, openness to new knowledge, is critical and self-critical.

PLOs₁₇ – Perform research individually and / or in a group under the leadership of the leader

PLOs₁₉ – Be able to use modern information technologies, blocking technologies in resource management and databases to justify managerial decisions on the choice of innovative technologies in agrarian enterprises.

3. MODULE INDICATIVE CONTENT

Autumn semester

Topics	Distribution of hours			Learning resources	
	Directed study		Self-directed study		
	Lectures	Practicals	Labs		
<p>Topic 1 <i>Digital management: peculiarities of management in the digital economy</i></p> <p>1 Concept and characteristics of the digital economy 2 New management paradigms in the digital economy 3 The essence, place and role of digital strategies in modern management 4 Advantages and disadvantages of the transition to the Gig economy</p>	2	2		10	Key resources: 1- 3 Methodological support: 1.
<p>Topic 2 <i>Digitalization and development of the modern world</i></p> <p>1 Main trends in the development of industry 4.0 and its impact on the economic security of the state 2 Features of digitalization in the EU and in the world 3 Electronic Ukraine in the digital world 4 Digitalization of the agricultural sector</p>				10	Key resources: 1- 3 Methodological support: 1.
<p>Topic 3 <i>Digital management of public resources</i></p> <p>1 Electronic governance (e-Government) 2 Problems of e-government regulation 3 Digital platforms for public services 4 EU4DigitalUA project 5 E-governance in the agricultural sector of Ukraine</p>	2			10	Key resources: 1- 3 Methodological support: 1.
<p>Topic 4 <i>Information security in e-government systems</i></p> <p>1 Basic definitions and concepts of information security 2 Channels of information leakage 3 Determination of levels of counteraction to information security threats in e-government systems 4 Protection of digital personality in the EU experience and in the world</p>		2		8/10	Key resources: 1- 3 Methodological support: 1.
<p>Topic 5 <i>The concept of a "smart" city Smart City and its application in innovation management</i></p> <p>1 The essence of the smart city concept 2 Factors and indicators of a "smart" city</p>				10	Key resources: 1- 3 Methodological support: 1.

3 Foreign practices of creating and managing smart cities					
Topic 6 <i>Digitalization of business management</i> 1. Directions for the development of management systems in the context of business digitalization 2 The concept of digitization of business processes 3 Stages of digitalization and business virtualization 4 Digital technologies in the system of strategic management of agricultural business 5 Cybersecurity: threats and means of business protection				10	Key resources: 1- 3 Methodological support: 1.
Topic 7 <i>Internet technologies in business management</i> 1 Internet technologies in management 2 Internet commerce 3 Interactive marketing 4 Virtual enterprises 5 Digital platforms as a driver of development	2	2		11	Key resources: 1- 3 Methodological support: 1.
Topic 8 <i>Electronic document management systems</i> 1 The concept of an electronic document for management activities 2 Formats of electronic documents 3 Electronic digital signature 4 Electronic office. Information technologies for office automation 5 The impact of digital transformation on enterprise management 6 Security of electronic document management	2	2		11	Key resources: 1- 3 Methodological support: 1.
Topic 9 <i>Human resource management in the context of digitalization of the economy</i> 1 The main stages of human resources management in the digital economy 2 Transfer of social and labor relations to cyberspace 3 The role of human capital in the digitalization of the economy 4 Neuromanagement	2	2		11	Key resources: 1- 3 Methodological support: 1.
Topic 10 <i>Digital etiquette in modern business communications</i> 1 General principles of digital etiquette 2 Gadgets and digital etiquette offline 3 Digital etiquette in online communication 4 Netiquette (network etiquette, netiquette)				11	Key resources: 1- 3 Methodological support: 1.

Topic 11 <i>Application of blockchain technology in business management</i> 1 Basics and principles of blockchain technology 2 Evolution of blockchain technology 3 Classification of blockchains 4 Blockchain in economics and business management 5 Prospects for the use of blockchain technology in the agricultural sector				11	Key resources: 1- 3 Methodological support: 1.
Topic 12 <i>Artificial intelligence in management activities</i> 1 The concept of artificial intelligence. Main categories 2 Modern achievements and threats in the development of AI 3. Opportunities of AI in the professional activity of a manager 4 Using AI to improve the work of HR managers	2	2		11	Key resources: 1- 3 Methodological support: 1.
Total	12	12		126	

4. TEACHING AND LEARNING METHODS

MLOs	Teaching methods (directed study)	Learning methods (self-directed study)
MLOs 1 Understand the basic concepts, principles and tools of digital management.	Interactive lectures, thematic discussions, analytical tasks. Interactive learning technologies (for example, the use of multimedia technologies, case-study (a method of analyzing specific situations).	Express surveys of higher education students, oral surveys, testing, use of training and control tests, use of lecture notes, etc.
MLOs 2 Use modern digital technologies such as Internet technologies, blockchain, electronic document management systems and artificial intelligence to optimize business processes and management decisions	Verbal methods: lecture, explanation, thematic discussion, analysis of specific situations (case-study). Visual methods: use of multimedia technologies. Practical methods: practical situational tasks.	Independent work with the textbook, with lecture notes in the Moodle system, with literary sources and electronic resources with elements of search orientation, problem solving, use of educational and control tests.
MLOs 3 Analyze the impact of digitalization on various aspects of business and society, and assess potential risks and opportunities for improved governance arising in the digital economy	Verbal methods: lecture, explanation, thematic discussion, analysis of specific situations (case-study). Visual methods: use of multimedia technologies. Practical methods: practical situational tasks.	Independent work with the textbook, with lecture notes in the Moodle system, with literary sources and electronic resources with elements of search orientation, problem solving, use of educational and control tests.

<p>MLOs 4 Use the basics of information security and have the skills to implement data protection methods in digital management systems, including e-government systems</p>	<p>Verbal methods: lecture, explanation, thematic discussion, analysis of specific situations (case-study). Visual methods: use of multimedia technologies. Practical methods: practical situational tasks.</p>	<p>Independent work with the textbook, with lecture notes in the Moodle system, with literary sources and electronic resources with elements of search orientation, problem solving, use of educational and control tests.</p>
<p>MLOs 5 Communicate effectively in the digital environment, following the rules of digital etiquette in business communications, and use digital tools for collaboration, information exchange and personnel management</p>	<p>Interactive lectures, thematic discussions, solving analytical problems. Interactive learning technologies (for example, the use of multimedia technologies, case-study (a method of analyzing specific situations)).</p>	<p>Independent work with the textbook, with lecture notes in the Moodle system, with literary sources and electronic resources with elements of search orientation, problem solving, use of educational and control tests.</p>

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 10 points The maximum score for the second theoretical milestone control is 10 points	20 points / 20%	at week 6, on the 12 week
2	Performing situational tasks	30 points / 30%	according to the schedule of practical classes by the end of weeks 6, 12
3	Performing individual tasks on the impact of digitalization on the management of various areas of business and society	10 points / 10%	by the end of the 5 week
4	Preparation of a report with a presentation	10 points / 10%	in the 11 week
TOTAL		70 points / 70%	week 12
5	Exam: - theoretical questions - calculation and practical task	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 10 points The maximum score for the	<i><12 points</i>	<i>12-15 points</i>	<i>15-18 points</i>	<i>18-20 points</i>
	<i>The higher education applicant has some theoretical elements of the course. There is no integrity of understanding of the theoretical material.</i>	<i>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.</i>	<i>The higher education applicant demonstrates a good knowledge, has a good command of the material that corresponds to the program of the discipline, but makes some inaccuracies.</i>	<i>The higher education applicant demonstrates a complete and solid knowledge of theoretical material in the amount that corresponds to the program of the discipline.</i>

second theoretical milestone control is 10 points				
Performing situational tasks	<i><18 points</i>	<i>18-21 points</i>	<i>22-26 points</i>	<i>27-30 points</i>
	<i>Basic numerical problems unsolvable</i>	<i>Solve basic numerical problems using appropriate methods</i>	<i>Solve a number of numerical problems using appropriate methods</i>	<i>Solve complex numerical problems using appropriate methods.</i>
Performing individual tasks on the impact of digitalization on the management of various areas of business and society	<i><6 points</i>	<i>6-8 points</i>	<i>8-9 points</i>	<i>9-10 points</i>
	<i>Basic numerical problems unsolvable</i>	<i>Solve basic numerical problems using appropriate methods</i>	<i>Solve a number of numerical problems using appropriate methods</i>	<i>Solve complex numerical problems using appropriate methods.</i>
Preparation of a report with a presentation	<i><6 points</i>	<i>6-8 points</i>	<i>8-9 points</i>	<i>9-10 points</i>
	<i>Basic numerical problems unsolvable</i>	<i>Solve basic numerical problems using appropriate methods</i>	<i>Solve a number of numerical problems using appropriate methods</i>	<i>Solve complex numerical problems using appropriate methods.</i>
Exam	<i><19 points</i>	<i>19-24 points</i>	<i>24-28 points</i>	<i>29 -30 points</i>
	<i>Task requirements not met</i>	<i>Most requirements are met, but some components are missing or insufficiently disclosed, there is no analysis of other approaches to the question</i>	<i>All requirements of the task are met</i>	<i>All requirements of the task are fulfilled, creativity, thoughtfulness is shown, own solution of a problem is offered</i>

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	week 2, 4, 6, 8, 10, 12
2	Self-assessment of current testing	in week 6, week 12
3	Teacher's instructions in the process of performing practical calculation tasks	on each lesson
4	Oral feedback from the teacher and higher education students on the implementation of an individual task on the impact of digitalization on the management of various areas of business and society	by the end of week 4
5	Verbal feedback from the teacher and higher education students on the performance of situational tasks	by the end of weeks 6 and 12
6	Oral feedback from the teacher and students on the preparation of the report with presentation	during the 10th week

6. LEARNING RESOURCES

6.1. Key resources

1. Brennan Kevin, Godwin Sallie, Hendrickx Filip. Digital Product Management. BCS, The Chartered Institute for IT. 2022. 204 p.
2. Brzozowska Anna, Dagmara Bubel, Larysa Nekrasenko. Organisation Management in the Digital Economy: Globalization Challenges. CRC Press; 1st edition. 2022. 225 p.
3. Jordan Tim. The Digital Economy. 1st Edition, Kindle Edition. 2020. 204 p.

6.2. Methodological support

- 1 E-course (teaching materials) based on the Moodle platform. URL: <https://cdn.snau.edu.ua/moodle/course/view.php?id=5814>.

6.3. Additional resources

- 1 Alex Khang. AI-Oriented Competency Framework for Talent Management in the Digital Economy. RC Press; 1st edition. 2024. 456 p.
- 2 Baily Peter, Farmer David, Crocker Barry, Jessop David. Procurement Principles and Management in the Digital Age. 12e (Print) 12th Edition. 2021. 210 p.
- 3 Brzozowska Anna, Bubel Dagmara, Nekrasenko Larysa. Organisation Management in the Digital Economy: Globalization Challenges. CRC Press; 1st edition. 2022. 225 p.
- 4 Cabinet of Ministers of Ukraine. URL: <https://www.kmu.gov.ua/> (accessed 03 July 2024).
- 5 Leonardi Paul, Neeley Tsedal. The Digital Mindset: What It Really Takes to Thrive in the Age of Data, Algorithms, and AI. Harvard Business Review Press. 2022. 272 p.
- 6 Lukas Michel, Herb Nold. Organizational Life Cycle Transitions: Patterns of Mastery in Management for Growth in the Digital Economy. LID Publishing. 2024. 256 p.
- 7 Ministry of Economy of Ukraine. URL: <http://www.me.gov.ua> (accessed 03 July 2024).
- 8 Ministry of Finance of Ukraine. URL: <http://www.minfin.gov.ua> (accessed 03 July 2024).
- 9 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 (accessed 03 July 2024).
- 10 National Bank of Ukraine. URL: <http://www.bank.gov.ua> (accessed 03 July 2024).
- 11 State Statistics Service of Ukraine. URL: <http://www.ukrstat.gov.ua> (accessed 03 July 2024).
- 12 The Development of foreign trade of Ukraine. URL: <http://xreferat.com/113/9639-4-the-development-of-foreign-trade-of-ukraine.html> (accessed 03 July 2024).
- 13 The new economic analyses of multinationals. URL: https://books.google.com.ua/books?id=wM_SAgAAQBAJ&pg=PA1&lpg=PA1&dq=The+economic+analysis+in+the+field+of+International+Business&source=bl&ots=h0PUDdH_mu&sig=6djwh4IPTGpGepTmA0788i278gk&hl=ru&sa=X&ved=0ahUKEwiw-b7nxO_JAhXI_XIKHalQDAkQ6AEIMjAD#v=onepage&q=The%20economic%20analysis%20in%20the%20field%20of%20International%20Business&f=false (accessed 03 July 2024).
- 14 World Bank. URL: <https://www.worldbank.org/en/home> (accessed 03 July 2024).

6.3 Software

- 1 Use of standard Microsoft packages: Word, Excel, PowerPoint.
- 2 Multimedia, video and sound reproduction, projection equipment (video cameras, projectors, screens).
- 3 Service for organising online classes and webinars "Zoom"