SUBJECT (MODULE) DESCRIPTION

The name of the academic subject (module)	Code
Digitization and Artificial Intelligence	

Staff	Division
Coordinator: Assoc. Prof. Aleksandra Lezgovko	Faculty of Economics and Business Administration Business Department

Cycle of studies	Type of the subject (module):
Ist (Bachelorr)	Compulsory

Form of implementation	Period	Language of instruction
Face-to face at class	Spring semester	English

Requirements for student			
Prerequisites: Management		Additional requirements (if any): -	
Volume of the subject (module) in credits	**Total student's workload**	**Contact hours**	**Individual work hours**
5	130	48	82

Purpose of the course unit (module): programme competences to be developed		
The aim of the course is to introduce students to the possibilities of applying artificial intelligence technologies in the field of management, to develop the ability to creatively apply modern AI tools for business process optimization, strategic planning and decision-making. The course also develops skills to assess the benefits and risks of AI technologies in management, and encourages an innovative approach to the challenges of modern business. **Competencies** to be developed: 1. Ability to analyze management problems and creatively apply AI tools to solve them. 2. Skills in working with generative and analytical AI tools, such as ChatGPT, MidJourney, Gamma, Synthesia and InVideo. 3. Basic knowledge about the application of AI technologies in communication, content creation and decision-making processes. 4. Understanding of the ethical and social aspects of AI technologies, taking into account the context of their application in management. 5. Ability to create visualizations of business processes, analyze and interpret data-driven decisions using AI tools.		

Learning outcomes of the course unit (module)	Teaching and learning methods	Assessment methods
1. Be able to identify management problems and apply artificial intelligence solutions to overcome them.	During the course students will analyze management problems using real examples and look for the most suitable AI solutions.	Lectures will include discussions, individual and group assignments, and assessments will include tests and assignments.
2. Understand the basic principles of how generative AI models (e.g. ChatGPT, MidJourney) and analytical tools work.	Students will become familiar with the most popular AI tools and their application possibilities in business process improvement. Practical sessions will allow them to test the operation of the tools.	Assessment will be carried out through tests and practical tasks that will need to be completed using the selected tools.
3. Be able to practically apply AI technologies for optimizing business processes and making management decisions.	Practical sessions and project tasks will provide students with the opportunity to test the application of AI technologies in business processes.	Group projects and practical assignment reports will be assessed based on the quality of the work results.
4. Analyze the social and ethical aspects of applying AI in management.	During the seminars, discussions will be held about the social and ethical dilemmas of applying AI in management. Students will complete reflection tasks by analyzing real cases.	The exam will include theoretical questions and analysis of practical situations to assess students' abilities and knowledge.

Themes	Contact hours							Individual work: time and assignments	
	Lectures	Consultations	Seminars	Practical classes / Practical classes	Lab works	Practice	Total contact hours	Independent work	Assignments
Introduction to Artificial Intelligence: History, Principles, and Applications in Management	4						4	10	Write an essay on the "Importance of AI in Management" based on the main literature.
Generative models: ChatGPT, MidJourney – possibilities and limitations.	4			12			16	14	Create sample content using ChatGPT and MidJourney, provide analysis.
Video and multimedia content creation using Synthesia and InVideo.	4			8			12	12	Create a feature-length video presentation using Synthesia/InVideo
Integrating artificial intelligence solutions into business process optimization	4		2				6	14	Prepare a business process optimization project based on real examples.
Ethical and social aspects of AI: challenges and risk management	2		2				4	12	Write a reflection on "DI ethical dilemmas in management" based on a case analysis.
Developing complex management solutions using AI tools				6			6	20	Prepare a group project using multiple AI tools to solve a management problem.
Total:	18		4	26			48	82	

Assessment strategy	Share in %	Time of assessment	Criteria of assessment
Individual project (content creation with AI tools)	20%	6 week	Project creativity, applicability in management, technical use of AI tools.
Group project (development of complex solutions)	30%	14 week	Solution validity, integration of AI tools, teamwork organization, and delivery quality.
MidTerm	20%	8 week	Accuracy and correctness of theoretical knowledge about AI principles and results of practical tasks.
Final Exam	30%	During session	Mastering theoretical knowledge, analyzing practical examples and providing solutions; the exam consists of theoretical questions and practical

			tasks.
Adding bonus	Up to 1 point for a positive exam assessment	During semester	Bonus calculation: Participation in seminars, interactive discussions, reflection tasks or additional activities. Maximum number of bonuses = maximum number of questions asked/tasks solved/completed during the entire course of the subject
The composition of final accumulative grade			Final Grade Formula: The final grade is calculated using the formula: (0.2 * MidTerm) + (0.2 * Individual Project) + (0.3 * Group Project) + (0.3 * Exam) + (Additional Bonus).

Author	Published in	Title	Volume of a periodical or publication	Place of publishing, publishing house, or Internet reference
OpenAI	2023	ChatGPT: Advancing AI Conversations		https://openai.com/research
Synthesia	2023	AI Video Generation Platform		https://www.synthesia.io/
Gamma	2023	AI-Powered Presentation Tool		https://gamma.app/
InVideo	2023	Online Video Editor		https://www.invideo.io/
Additional literature				
Goodfellow, I., Bengio, Y., Courville, A.	2016	Deep Learning		Cambridge: MIT Press. https://www.deeplearningbook.org/