



COURSE UNIT (MODULE) DESCRIPTION

Course unit (module) title	Code
AI and Digitalisation	

Academic staff	Core academic unit(s)
Coordinating: lecturer Vasilij Savin	Department of Faculty of Economics and Business Administration Vilnius University

Study cycle	Type of the course unit
1 st (BA)	Compulsory

Mode of delivery	Semester or period when it is delivered	Language of instruction
Face-to-face	2 nd semester	English

Requisites	
Prerequisites: N/A	Co-requisites (if relevant): N/A

Number of ECTS credits allocated	Student's workload (total)	Contact hours	Individual work
5	130	48	82

Purpose of the course unit		
This course develops AI literacy and critical thinking for economics graduates entering a world where AI is reshaping industries, organisations, and professional practice. Rather than treating AI as a black box or a source of hype, students will build a grounded understanding of how AI systems work, where they add value, and where they fail or cause harm. The course takes a practical and reflective approach. Students will engage with AI tools hands-on, analyse real-world cases, and apply a scientific mindset to evaluate AI's role in contexts relevant to their own lives and future careers. Alongside technical and business perspectives, the course addresses the ethical responsibilities and regulatory landscape that economics graduates will need to navigate — including the EU AI Act and emerging frameworks for accountability. By the end of this course, students will be equipped not just to use AI, but to ask better questions about it.		
Learning outcomes of the course unit	Teaching and learning methods	Assessment methods
Define AI and distinguish it from automation; explain key concepts including machine learning, generative AI, and agentic systems.	Lectures, icebreaker activities, in-class discussion	Lecture tests
Critically evaluate AI systems by identifying their capabilities, limitations, and potential failure modes in real-world contexts.	Seminars, group discussion	Individual Research Project; Group Project
Analyse how AI creates and destroys value across business models, industries, and economic structures.	Lectures, guest speakers	Group Project
Design a small-scale AI experiment by formulating a problem statement and hypothesis, selecting and applying an appropriate AI tool, documenting results	Hands-on tool workshops, seminar experimentation	Individual Research Project

systematically, and drawing evidence-based conclusions.		
Assess the ethical implications of AI deployment, including bias, accountability, transparency, and fairness, and apply these considerations to real-world scenarios.	Ethics seminars, EU AI Act analysis	Lecture tests; Individual Research Project

Content	Contact hours							Individual work: time and assignments	
	Lectures	Tutorials	Seminars	Workshops	Laboratory work	Internship	Contact hours, total	Individual work	Tasks for individual work
1. Introduction to Digitalization & AI	2		4				6	10	Read Crawford Ch.1-2; complete AI Audit reflection
2. Foundations of Machine Learning	2		4				6	10	Watch 3Blue1Brown Neural Networks ep.1-3; complete concept map
3. Generative AI and Large Language Models	2		4				6	10	Experiment with two LLM tools; document observations
4. Human–AI Collaboration & Prompt Engineering	2		4				6	10	Complete prompting exercises; draft experiment hypothesis
5. Intelligent automation and Agentic AI	2		4				6	10	Map one agentic AI workflow; begin project research
6. AI-Driven Business Transformation	2		4				6	10	Analyse one company AI strategy; group project milestone
7. AI Ethics & Regulation	2		4				6	11	Read Crawford Ch.5-6; prepare ethics debate arguments
8. AI Systems in Practice	2		4				6	11	Finalise Individual Research Project; prepare group presentation
Total	16		32				48	82	

Assessment strategy	Weight %	Deadline	Assessment criteria
Individual Research Project	30	May 25	Depth of personal reflection, scientific approach
Group project	50	May 1st	Thoroughness of analysis, recommendation validity and practicality, quality of presentation
Lecture tests	20	June 1	Answer correctness and completeness

Author (-s)	Publishing year	Title	Issue of a periodical or volume of a publication	Publishing house or web link
Required reading				
Crawford, K.	2021	<i>Atlas of AI: Power, Politics, and the</i>	Book	Yale University Press

		<i>Planetary Costs of Artificial Intelligence</i>		
Mollick, E.	2024	<i>Co-Intelligence: Living and Working with AI</i>	Book	Portfolio/Penguin
3Blue1Brown (Grant Sanderson)	2017–2024	<i>Neural Networks (video series)</i>	YouTube playlist	https://youtube.com/playlist?list=PLZHQObOWTQDNU6R1_67000Dx_ZCJB-3pi
Recommended reading				
O’Neil, C.	2016	<i>Weapons of Math Destruction</i>	Book	Crown Publishers
Lee, K.-F.	2018	<i>AI Superpowers: China, Silicon Valley, and the New World Order</i>	Book	Houghton Mifflin Harcourt
Christian, B.	2020	<i>The Alignment Problem: Machine Learning and Human Values</i>	Book	W. W. Norton
Eubanks, V.	2018	<i>Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor</i>	Book	St. Martin’s Press
Vaswani, A. et al.	2017	<i>Attention Is All You Need</i>	arXiv:1706.03762	https://arxiv.org/abs/1706.03762