

Subject card

Subject name and code	Creating AI Agents (no code), PG_00206504						
Field of study	Economics, International Economic Relations						
Date of commencement of studies	October 2024		Academic year of realisation of subject			2026/2027	
Education level	Bachelor's studies		Subject group			Obligatory subject group in the field of study Optional subject group	
Mode of study	full-time studies		Mode of delivery			at the university	
Year of study	3		Language of instruction			Polish	
Semester of study	6		ECTS credits			2.0	
Learning profile	academic		Assessment form			credit	
Conducting unit							
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Rafał Śpiewak				
	Teachers		dr inż. Rafał Śpiewak				
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	30.0	0.0	0.0	0.0	30
	E-learning hours included: 0.0						
Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	Number of study hours	30		2.0		18.0	50
Subject objectives	The aim of the course is to equip students with knowledge and skills in the practical application of artificial intelligence and process automation in business, with particular emphasis on the analysis of organizational needs, automation design, integration of digital tools and assessment of their impact on the efficiency of business processes.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[EKONL3_U02] is able to use the knowledge of theory and data to analyse concrete economic and social processes and phenomena and to analyse these phenomena using methods developed in economics, finance and management sciences	The student is able to use theoretical knowledge, data and methods of economics, finance and management sciences to design and create AI agents that support the analysis of economic and social phenomena and decision-making.	[SU6] demonstration of practical skills [SU8] observation of student's independent or team work
	[MSG3_W10] knows selected methods and tools, including IT tools and data acquisition techniques, which make it possible to describe and analyse economic entities operating on the international market; knows the processes and phenomena occurring in them and between them, and processes supporting decision-making	The student knows selected methods and tools used in the creation of AI agents, including data acquisition and analysis techniques and IT tools supporting process automation, analysis of economic entities on the international market and business decision-making.	[SW1] oral statement/conversation/discussion [SW5] implementation of a problem task
	[EKONL3_K06] is willing to be guided in his professional life by business ethics and corporate social responsibility, to respect others and to be loyal to his employer	The student demonstrates readiness to create AI agents responsibly and ethically, while respecting user rights, security principles, data protection, anti-abuse measures, and the interests of the organization using AI solutions.	[SK6] demonstration of practical skills [SK8] observation of student's independent or team work
	[MSG3_U08] uses methods and computer programmes as well as marketing techniques and tools to acquire and analyse data necessary in his/her professional work to diagnose economic processes and make adequate economic decisions	The student uses AI methods, computer programs, and tools to create AI agents for acquiring and analyzing data, diagnosing economic processes, and supporting economic decisions.	[SU5] implementation of a problem task [SU6] demonstration of practical skills
	[MSG3_K06] is ready to be guided in his/her professional life by business ethics and corporate social responsibility, to respect others and to be loyal to his/her employer	The student is ready to ethically and responsibly create AI agents, respecting users, data security principles, corporate social responsibility, and the interests of the organization and employer.	[SK5] implementation of a problem task [SK8] observation of student's independent or team work
	[EKONL3_W06] has an advanced knowledge of selected methods and tools, including statistical and econometric techniques, for describing economic agents and structures as well as social institutions and the processes taking place in them	The student has advanced knowledge of the methods and tools used to create AI agents, including data analysis techniques, process modeling, and automation of activities supporting the functioning of economic entities, organizations, and social institutions.	[SW1] oral statement/conversation/discussion [SW5] implementation of a problem task
Subject contents	The aim of the course is to equip students with the knowledge and skills necessary to apply artificial intelligence and workflow automation in business, with particular emphasis on organizational needs analysis, automation design, digital tool integration, and assessment of their impact on business process efficiency. Content: • Explore the applications of AI and automation in business customer service, finance, HR, document management, and data analysis. • Develop workflow design skills from identifying a business problem to developing an automated solution. • Develop practical competencies creating simple AI agents, automation systems, and tools supporting organizational processes. • Assess the effectiveness of AI implementations analyze the benefits, limitations, costs, risks, and impact of automation on enterprise operations.		
Prerequisites and co-requisites	Knowledge of the basics of modeling logistics processes and systems		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Class work	51.0%	80.0%
	activity during classes	51.0%	20.0%
Recommended reading	Basic literature	Azmat, H. (n.d.). <i>Automating business workloads with n8n and AI agents</i> .	

	Supplementary literature	Kumar, A. (2024). How to connect AI agents with n8n for end-to-end automation. <i>Global Knowledge Academy (GNA)</i> , 5(4), 7381.
	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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