

Subject card

Subject name and code	Critical Thinking in e-government - conservatory, PG_00198192						
Field of study	Administration						
Date of commencement of studies	October 2026	Academic year of realisation of subject			2027/2028		
Education level	Master's studies	Subject group			Obligatory subject group in the field of study Subject group related to scientific research in the field of study		
Mode of study	full-time studies	Mode of delivery			at the university		
Year of study	2	Language of instruction			Polish		
Semester of study	4	ECTS credits			1.0		
Learning profile	academic	Assessment form			credit		
Conducting unit	Department of the Theory and Philosophy of Law and State -> Faculty of Law and Administration -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		mgr Wojciech Jankowski				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	0.0	0.0	0.0	15
	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	15		2.0		8.0	25
Subject objectives	The aim of the course is to develop students' critical thinking competencies as a tool for analysing complex problems in the field of e-administration and new technologies law. Within the course, students acquire the ability to identify, evaluate and verify information obtained from digital sources, to recognise cognitive biases and argumentative manipulation, and to construct and assess arguments in legal and administrative contexts. The course introduces students to the foundations of formal and informal logic as the basis of correct reasoning, as well as to the Bayesian approach to reasoning under uncertainty as a tool supporting rational decision-making in public administration. The course fosters a reflective and autonomous thinking attitude essential in the practice of administration operating in the information environment.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[ADMINMU2_U01] Using their own knowledge and other sources of information, they are able to identify, analyze, and resolve complex problems, formulate their own theses, and interpret phenomena related to the organization and functioning of public administration as well as selected domains of social and economic life, particularly those characteristic of the state and the information society.	The student applies tools of formal and informal logic and Bayesian reasoning to identify, analyse and resolve complex decision-making problems in the area of e-administration, formulates own theses supported by critical evaluation of information sources, and interprets phenomena characteristic of the information state and information society, taking into account mechanisms of disinformation and cognitive bias.	[SU1] oral statement/conversation/discussion [SU2] presentation/project/paper/report [SU4] test/exam - oral or written
	[ADMINMU2_K01] Being aware of the role of knowledge in solving problems related to the organization and functioning of public administration, as well as the application of law in selected domains of social and economic life, he/she is prepared to think critically and evaluate substantive content, including legal norms, and to draw on expert knowledge.	The student is prepared to critically evaluate substantive content, including the content of legal norms and administrative decisions, using tools of formal and informal logic, recognises their own cognitive biases and epistemic limitations, and consciously draws on expert knowledge while verifying its credibility through fact-checking techniques and argumentation analysis.	[SK1] oral statement/conversation/discussion [SK4] test/exam - oral or written [SK6] demonstration of practical skills [SK8] observation of student's independent or team work
	[ADMINMU2_U05] Is able to assess the level of their knowledge and skills, and understands the need for continuous learning and the ongoing development of their professional competences, using various sources and tools for this purpose.	The student critically self-assesses their level of knowledge and skills in the area of critical thinking and reasoning, identifies areas requiring further development, and independently selects appropriate sources and tools for improving the analytical and argumentation competencies essential in public administration practice.	[SU1] oral statement/conversation/discussion [SU5] implementation of a problem task [SU7] entries and opinions in the internship diary [SU8] observation of student's independent or team work
	[ADMINMU2_W03] Knows and understands the current dilemmas concerning the functioning of public administration and the application of legal institutions within the sphere of the state, administration, and the economy, including in the context of the creation and development of various forms of entrepreneurship, with particular emphasis on regulations concerning new technologies law.	The student knows and understands current dilemmas relating to the functioning of e-administration and the application of new technologies law, critically analyses arguments formulated in legal and administrative discourse concerning the digitalisation of the state, and identifies epistemic risks arising from the use of algorithmic systems and artificial intelligence in the public sphere.	[SW4] test/exam - oral or written [SW1] oral statement/conversation/discussion [SW3] text preparation/written work [SW5] implementation of a problem task
Subject contents	<ul style="list-style-type: none"> • The concept and structure of critical thinking an overview of approaches. • Foundations of formal logic: propositional calculus, predicate calculus, • Informal logic: analysis and evaluation of arguments in natural language, argumentation schemes. • Logic of argumentation: deductive, inductive and abductive reasoning. • Formal and informal fallacies typology and examples from administrative practice. • Cognitive biases and their significance in administrative decision-making processes. • Information verification and assessment of the credibility of digital sources. • Disinformation, fake news and propaganda in the e-administration space. • Legal argumentation vs. everyday argumentation similarities and differences. • Critical analysis of legal texts and administrative documents. • Introduction to Bayesian reasoning: prior probability, posterior probability and Bayes' theorem. • Bayesian belief updating in public administration decision-making processes. • Critical thinking and AI algorithms and systems in public administration a Bayesian perspective. • Ethical aspects of information processing in the digital environment. • Practical application of fact-checking tools in administrative activity. 		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
		51.0%	100.0%

Recommended reading	Basic literature	<ul style="list-style-type: none"> • O. Nawrot, <i>Wprowadzenie do logiki dla prawników</i>, (wyd. 5 dowolne). • K. Szymanek, <i>Sztuka argumentacji. Słownik terminologiczny</i>, • K. Szymanek, K.A. Wieczorek, A.S. Wójcik, <i>Sztuka argumentacji. Ćwiczenia w badaniu argumentów</i>, • D. Kahneman, <i>Pułapki myślenia. O myśleniu szybkim i wolnym</i>, • S. Pinker, <i>Racjonalność. Co to jest, dlaczego jej brakuje, dlaczego ma znaczenie</i>,
	Supplementary literature	<p>D. Walton, C. Reed, F. Macagno, <i>Argumentation Schemes</i></p> <p><i>T. Hołówka, Kultura logiczna w przykładach</i></p> <p><i>D. Kahneman, O. Sibony, C.R. Sunstein, Szum, czyli skąd się biorą błędy w naszych decyzjach</i></p>
	eResources addresses	
Example issues/ example questions/ tasks being completed	<ul style="list-style-type: none"> • What is critical thinking and what are its fundamental components? • What is the difference between formal and informal logic? What is the significance of this distinction in the context of legal and administrative argument analysis? • Practical task: formalisation of a selected legal argument in propositional calculus identification of premises and conclusion. • What are the most common formal and informal fallacies in administrative and public discourse? Analysis of examples. • Which cognitive biases most frequently affect decision-making in public administration? • How can the credibility of an information source in the digital environment be assessed? • What threats to information quality does the development of e-administration entail? • What is the difference between an argument and persuasion? Provide examples from administrative practice. • What is Bayesian reasoning and how does it differ from classical deductive reasoning? • How can Bayes' theorem be applied to update the credibility assessment of information on the basis of new evidence? • Practical task: Bayesian analysis of a decision-making case estimating prior probability and updating it on the basis of incoming administrative data. • Case study: identification of argumentative fallacies in a selected administrative act or public communication. • How can artificial intelligence systems based on Bayesian reasoning support or replace the judgement of a public official? • Practical task: verification of a selected piece of administrative information using fact-checking tools. • What are the ethical limits of critical evaluation of administrative decisions in the public sphere? 	
Work placement	Not applicable	

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