



## Subject card

Subject name and code	Elements of logic and epistemology, PG_00045329						
Field of study	Data Engineering						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2025/2026		
Education level	first-cycle studies		Subject group		Obligatory subject group in the field of study Humanistic-social subject group		
Mode of study	Full-time studies		Mode of delivery		at the university		
Year of study	1		Language of instruction		English		
Semester of study	1		ECTS credits		2.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department of Philosophy and Science Methodology -> Faculty of Management and Economics						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Jakub Gużyński				
	Teachers		dr Jakub Gużyński				
Lesson types and methods of instruction	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	This course serves as an introduction to the problems of epistemology and logic.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_K01] demonstrates awareness of legal, ethical and cultural diversity issues, making socially responsible decisions		Student is aware of the social and ethical dimensions of issues related to knowledge and cognition.		[SK5] Assessment of ability to solve problems that arise in practice		
	[K6_W02] demonstrates advanced preparation in methods and techniques for formulating and solving problems		Can use logic tools and solve complex problems of an abstract nature.		[SW1] Assessment of factual knowledge		

Subject contents	<p>What is philosophy, what is logic, what is epistemology?</p> <p>Basic concepts of logic. Propositional calculus. Basic logic functions. Tautologies. Proof by contradiction.</p> <p>Logical rules of inference. Logical relations. Common logical mistakes. Paradoxes of material implication.</p> <p>Unearthing the old epistemological dispute on the source of knowledge. Platos rationalism and Aristotles empiricism.</p> <p>Modern turn to epistemology. Rationalism of Descartes and Leibnitz. British empiricism of Bacon and Locke. Birth of modern science.</p> <p>Idealism vs realism. <i>A priori</i> vs <i>a posteriori</i> in cognition and knowledge. Kants answer to David Humes scepticism. Kants critical (transcendental) idealism and novelty of his approach.</p> <p>Correspondence theory of truth. Scepticism and sceptic arguments in epistemology. Problem of perception, argument from illusion. Do we reflect external world directly in our consciousness/mental representations? Semantic, pragmatic and coherent theories of truth.</p> <p>Contemporary epistemology. Knowledge as justified belief. Sources of knowledge: perception, memory, introspection, testimony. Gettiers challenge. Structures of justification (foundational, coherent, infinitism). Externalism vs internalism.</p> <p>Introduction to the philosophy of the mind: major controversies. Body-mind problem. Consciousness, <i>qualia</i>, supervenience. Conceptions of naturalized mind and the influence of evolutionary psychology. Turing on machines and Searles Chinese room argument. Hilary Putnam and brains in vat.</p> <p>Linguistic turn. Ludwig Wittgenstein: from examining the consciousness to the philosophy of language. Austin: we do things with words! The essence of American neopragmatism: Richard Rorty.</p> <p>Philosophy of science. Demarcation problem. Neopositivism and protocol sentences. Problem of induction. Quine-Duhem theorem applied to sciences. Karl Poppers falsification program. Henri Poincaré and Kazimierz Ajdukiewicz on conventionalism.</p> <p>Thomas Samuel Kuhn on scientific revolution. Concept of paradigm. Classical and non-classical sociology of knowledge. Science and technology studies. Bruno Latour on technology and non-human agency. Expert and layman knowledge.</p>		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Final test	50.0%	60.0%
	Participation in the classes	50.0%	40.0%

Recommended reading	Basic literature	<p>Plato. 1992. <i>Republic</i>, trans. G. M. A. Grube, C. D. C. Reeves. Hackett Publishing.</p> <p>René Descartes. 2006. <i>A Discourse on the Method of Correctly Conducting Ones Reason and Seeking Truth in the Sciences</i>, trans. Ian Maclean. Oxford University Press.</p> <p>Immanuel Kant. 2004. <i>Prolegomena to Any Future Metaphysics That Will Be Able to Come Forward as Science with Selections from the Critique of Pure Reason</i>, trans. Gary Hatfield. Cambridge University Press.</p> <p>John R. Searle. 1980. <i>Minds, brains, and programs</i>. The Behavioral And Brain Sciences 3, 417-457.</p> <p>John. L. Austin. 1962. <i>How to Do Things with Words</i>. Oxford University Press.</p> <p>Karl Popper. 2002. <i>The Logic of Scientific Discovery</i>. Routledge.</p>
	Supplementary literature	<p>Ernest Sosa, Jaegwon Kim, Jeremy Fantl, Matthew McGrath. 2008. <i>Epistemology. An Anthology</i>. Blackwell Publishing.</p> <p>Patrick J. Hurley, Lori Watson. 2018. <i>A Concise Introduction to Logic</i>. Cengage Learning.</p>
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed	<ol style="list-style-type: none"> <li>1. What is apriorism.</li> <li>2. Find out if given formula is a tautology of a Propositional Calculus.</li> <li>3. Examine given sentences and find out if conclusion follows from the premises.</li> <li>4. Describe the internalism-externalism controversy.</li> <li>5. What is correspondence theory of truth.</li> </ol>	
Work placement	Not applicable	

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