



Subject card

Subject name and code	The history of philosophy with elements of mathematics, PG_00021029						
Field of study	Mathematics						
Date of commencement of studies	October 2021		Academic year of realisation of subject		2021/2022		
Education level	first-cycle studies		Subject group		Humanistic-social subject group		
Mode of study	Full-time studies		Mode of delivery		at the university		
Year of study	1		Language of instruction		Polish		
Semester of study	2		ECTS credits		2.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department of Social Sciences and Philosophy -> Faculty of Management and Economics						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Andrzej Lisak				
	Teachers		dr hab. Andrzej Lisak				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	0.0	0.0	0.0	30
	E-learning hours included: 0.0						
	Adresy na platformie eNauczanie:						
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		5.0		15.0	50
Subject objectives	Familiarizing with the basic concepts of history of philosophy, philosophy of science, philosophy of nature and history of mathematics.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	K6_K03		Student learns the basics of philosophy, history of science and history of mathematics, is able to take a critical stance toward certain conceptions, is aware of ethical entanglement of science and technology and can embed them in the wider socio-cultural contexts.		[SK5] Assessment of ability to solve problems that arise in practice		
	K6_K04		Student is able to point at the importance of given mathematical formulae within the context of the general history and evolution of science.		[SK2] Assessment of progress of work		
	K6_K01		Student is able to point at the metatheoretical conditioning of science, is fully aware of axiological, ontological and epistemological implications of a given world-view.		[SK5] Assessment of ability to solve problems that arise in practice		
	K6_W01		Student learns about the historical context of the application of mathematics to the theoretical problems of natural sciences as well as practical problems of technology and engineering.		[SW1] Assessment of factual knowledge		

Subject contents	1. Basic divisions within the field of philosophy and its fundamental concepts; 2. History of ancient philosophy - pre-socratic period. Mathematics in ancient Greece; 3. Philosophical systems of Plato and Aristotle. Aristotle's physics; 4. Philosophy of middle ages, philosophy of renaissance; 5. Galileo and Bacon. mathematization of science, birth of experiment; 6. Metaphysical systems of XVIIth century: Descartes, Pascal, Spinoza, Leibniz; 7. The birth of classical physics: Newton, atomism, mechanicism. The origins of mathematical analysis; 8. Kant's transcendentalism; 9. History of mathematics and science in XIXth century Positivism. 10. Philosophical meaning of the general theory of relativity; 11. Three main schools of philosophy of mathematics in XXth century: logicism, formalism, intuitionism; 12. General methodology of science: from Poincare to Feyerabend; 13. Mathematics and chaos theory; 14. Contemporary investigations within the field of the philosophy of mathematics; 15. Introduction to the sociology of knowledge and social studies of science.		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Final exam	50.0%	80.0%
	Participation in the lecture	80.0%	20.0%
Recommended reading	Basic literature	1. Roman Murawski, <i>Filozofia matematyki. Antologia tekstów klasycznych</i> , Poznań: Wydawnictwo Naukowe UAM, 2003; 2. Wojciech Sady, <i>Spór o racjonalność naukową od Poincarego do Laudana</i> , Wrocław: Fundacja Na Rzecz Nauki Polskiej, 2000. 3. Władysław Tatarkiewicz, <i>Historia filozofii</i> , trzy tomy, Warszawa: PWN: 2007.	
	Supplementary literature	Roman Murawski, <i>Filozofia matematyki: zarys dziejów</i> , Poznań: Wydawnictwo Naukowe UAM, 2008.	
	eResources addresses		
Example issues/ example questions/ tasks being completed	Enumerate and briefly discuss the main periods in the history of philosophy; What are the three main schools of philosophy of mathematics in XXth century; Describe briefly what is conventionalism in the general methodology of science; Describe the world-view of classical physics.		
Work placement	Not applicable		