



## Subject card

Subject name and code	LOGIC, PG_00061319						
Field of study	Engineering Management						
Date of commencement of studies	October 2023	Academic year of realisation of subject			2023/2024		
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			Polish		
Semester of study	1	ECTS credits			4.0		
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	15.0	0.0	0.0	0.0	45
	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	45		5.0		50.0	100
Subject objectives	Formulates solutions to complex problems using basic laws and techniques of logic						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_U04] formulates logical solutions to complex or unstructured problems		selects optimal decision variants using basic logical operations: classifying, defining and reasoning		[SU3] Assessment of ability to use knowledge gained from the subject		
	[K6_W02] demonstrates advanced preparation in the methods and techniques of formulating and solving problems		analyzes any theorems in terms of their logical and argumentative correctness		[SW1] Assessment of factual knowledge		
Subject contents	What is logic? Logic and language Functions of language. logic and meaning Name and concept Definitions and division Propositions and judgments and their forms Sentential calculus Rules of sentential calculus Predicate calculus Basic notions of set theory Syllogistic logic. Deductive, reductive and inductive reasoning The meaning of logic for solving scientific questions Logic in economics. Logic and rhetoric Discussions of chosen logical dilemmas and solving problems						
Prerequisites and co-requisites							
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	Homeworks		60.0%		15.0%		
	Presenting chosen subjects		100.0%		20.0%		
	Oral exam		60.0%		65.0%		
Recommended reading	Basic literature		K. Ajdukiewicz, Zarys logiki. PZWS, Warszawa, 1957 L. Borkowski, Elementy logiki formalnej. PWN, Warszawa, 1974 B. Stanosz, Wprowadzenie do logiki formalnej. PWN, Warszawa, 1985 Z. Ziemiński, Logika praktyczna. PWN, Warszawa, 1998				

	Supplementary literature	Mała encyklopedia logiki, Wrocław. Warszawa, Kraków, Ossolineum, 1970 Ch. Perelman, Retoryka a sztuka argumentacji. PWN, Warszawa, 2003
	eResources addresses	Adresy na platformie eNauczenie: Logika (Z I STAC) - Moodle ID: 34103 <a href="https://enauczanie.pg.edu.pl/moodle/course/view.php?id=34103">https://enauczanie.pg.edu.pl/moodle/course/view.php?id=34103</a>
Example issues/ example questions/ tasks being completed	Examine given sentences and give its conclusion	
Work placement	Not applicable	