



UNIVERSITÀ DI PAVIA

Anno Accademico 2023/2024

LOGIC FOR PRACTICAL REASONING AND ARTIFICIAL INTELLIGENCE

Enrollment year	2021/2022
Academic year	2023/2024
Regulations	DM270
Academic discipline	M-FIL/02 (LOGIC AND PHILOSOPHY OF SCIENCE)
Department	DEPARTMENT OF MATHEMATICS "FELICE CASORATI"
Course	ARTIFICIAL INTELLIGENCE
Curriculum	PERCORSO COMUNE
Year of study	3°
Period	2nd semester (04/03/2024 - 18/06/2024)
ECTS	6
Lesson hours	48 lesson hours
Language	English
Activity type	WRITTEN AND ORAL TEST
Teacher	LANDES JUERGEN (titolare) - 5 ECTS KUBYSHKINA EKATERINA - 1 ECTS
Prerequisites	Students are expected to have a basic knowledge of linear algebra, vector calculus, logic and probability.
Learning outcomes	At the end of the course students will be able to understand and discuss the principles of logic applied to practical reasoning and AI. They will be able to analyze a problem, and to design and implement a solution. They will be familiar with important techniques in the field and will be able to use them.
Course contents	After a refresher of logic covering basic concepts of propositional and first-order logic, the course will cover a variety of topics and techniques relating to logic and AI. Topics to be discussed are Argumentation, Belief Revision, Probabilistic Logic, Bayesian Networks, Paraconsistency (incl. Paradoxes), Inductive Logic, Philosophy of AI, modal logic and epistemic logic.

Teaching methods	This course has two main parts: lectures and exercises. Programming will not be part of this course.
Reccomended or required readings	The course is based on a set of notes that are supplemented by a selection of articles.
Assessment methods	The exam consists of an interview or a written in-class-assignment in which the student will discuss the topics of the course.
Further information	
Sustainable development goals - Agenda 2030	\$lbl_legenda_sviluppo_sostenibile