Syllabus

Course Description

Course Title	OFA "Logical-mathematical competence"
Course Code	500035
Course Title Additional	
Scientific-Disciplinary Sector	NN
Language	Italian
Degree Course	5 year master degree in Primary Education - Italian section
Other Degree Courses (Loaned)	
Lecturers	dr. Sara Bagossi, Sara.Bagossi@unibz.it https://www.unibz.it/en/faculties/education/academic-staff/person/50774
Teaching Assistant	
Semester	First semester
Course Year/s	1
CP	0
Teaching Hours	16 ore: Bagossi Sara
Lab Hours	0
Individual Study Hours	0
Planned Office Hours	0
Contents Summary	The course comprises four hour face-to-face workshops on logical-mathematical topics. Problem-solving activities in small groups, joint mathematical discussions and the use of analogue and digital teaching materials are planned.
Course Topics	The course content includes the representation of natural numbers, an in-depth examination of the properties of arithmetic operations and an introduction to basic algebraic concepts. In addition, various strategies of mental arithmetic and written arithmetic are covered. The aim is to develop conscious, flexible and efficient calculation methods. Part of the activities is dedicated

	to the investigation of objects in plane and space as well as to the acquisition of basic geometric knowledge. In addition, mathematical problem-solving strategies are deepened, whereby different solutions are explored, compared with each other and reflected on together. Other content concerns the representation and interpretation of data as well as fundamental aspects of logic and mathematical argumentation. These are intended to support participants in formulating hypotheses, justifying their own decisions, and developing clear, conclusive mathematical thinking.
Keywords	Numbers, operations, written and mental computations, geometric figures, problem-solving, data representation, logic, argumentation.
Recommended Prerequisites	
Propaedeutic Courses	
Teaching Format	In presence, laboratory.
Mandatory Attendance	
Specific Educational Objectives and Learning Outcomes	Educational objectives and learning outcomes:
Specific Educational Objectives and Learning Outcomes (additional info.)	
Assessment	Written test.
Evaluation Criteria	Criteria for assessing the written test: correctness of procedures and results, completeness, clarity, and consistency of reasoning and arguments, appropriate use of language and mathematical symbolism.
Required Readings	Sabena, C., Ferri, F., Martignone, F., & Robotti, E. (2019). *Insegnare e apprendere matematica nella scuola dell'infanzia e primaria* (pp. 1-295). Mondadori università.
Supplementary Readings	
Further Information	
Sustainable Development Goals (SDGs)	Quality education