

COURSE OF STUDY	TWO-YEAR MASTER OF SCIENCE PROGRAMME IN MATHEMATICS
ACADEMIC YEAR	2023-2024
ACADEMIC SUBJECT	HISTORY AND FOUNDATIONS OF MATHEMATICS

General information	
Programme year	Second
Term	Second semester (February 26, 2024 – May 31, 2024)
European Credit Transfer and Accumulation System credits (ECTS)	7
SSD	MAT/04 – Complementary Mathematics
Language	Italian
Mode of attendance	Not mandatory

Lecturers	
Name and surname	Margherita Barile
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Telephone	+39 080 544 2204
Department and office	Department of Mathematics, room 23 second floor
Virtual meeting room	Microsoft Teams – code 53c6bu8
Web page	https://www.dm.uniba.it/it/members/barile
Office hours	By appointment: a virtual meeting on Microsoft Teams can be requested by e-mail.

Work schedule				
	Total	Lectures	Hands-on learning	Self-study
Hours	175	56		119
ECTS credits	7	7		

Learning objectives	
	Understanding the origin and the evolution of mathematical notions

Course prerequisites	
	Fundamentals of algebra, calculus, geometry

Syllabus	
Course contents	The origins of mathematical thought in selected ancient sources (from Mesopotamia, Egypt and Greece)
Reference books	Further readings recommended during the lectures
Additional course materials	Texts, notes and slides are available online.
Repository	https://www.dm.uniba.it/it/members/barile/homepage/storia-e-fondamenti-della-matematica

Expected learning outcomes	
Knowledge and understanding	Placing a mathematical notion into a historical perspective
Applying knowledge and	Applying a history-based approach to mathematical education



understanding	
Soft skills	<i>Making judgements:</i> Comparing different views of the same mathematical object
	<i>Communication skills:</i> Raising public awareness in mathematics
	<i>Learning skills:</i> Learning by reading original mathematical works

Teaching methods	
	Lectures

Assessment	
Assessment methods	Oral presentation of an original mathematical text from a linguistic, historical and philosophical point of view (45-60 minutes)
Evaluation criteria	<ul style="list-style-type: none">• <i>Knowledge and understanding:</i> Being aware that mathematics is an evolving science• <i>Applying knowledge and understanding:</i> Placing an original mathematical work in its historical context• <i>Making judgements:</i> Analysing an original mathematical work critically• <i>Communication skills:</i> Explaining ancient mathematical texts• <i>Learning skills:</i> Recognizing the relevance of language in ancient mathematical texts
Grading policy	The passing grade range is 18-30 and the evaluation is based on the attained level of knowledge and skills. 18-21: sufficient 22-25: fair 26-29: good 30: very good 30 e lode: outstanding