



MINISTRY OF EDUCATION, CULTURE, RESEARCH, AND TECHNOLOGY
UNIVERSITAS NEGERI JAKARTA
FACULTY OF MATHEMATICS AND NATURAL SCIENCE

Jl. Rawamangun Muka, RT 11/RW14, Rawamangun, Pulo Gadung
 East Jakarta City, Special Capital Region Of Jakarta 13220
 Email: pend.mat@unj.ac.id, <http://fmipa.unj.ac.id/penmat>

History of Mathematics

Module designation	History of Mathematics
Semester(s) in which the module is taught	I (odd semester)
Person responsible for the module	Tian Abdul Aziz, Ph. D Leny Dhianti Haeruman, M. Pd
Language	Indonesian Language
Relation to curriculum	<i>Elective</i>
Teaching methods	The teaching methods used in this course are: <ul style="list-style-type: none"> - Learning activity (group discussion, case study, and video based learning) - Structure task (esai dan case study) Project based learning
Workload (incl. contact hours, self-study hours)	Total workload is 90,66 hours (3 ECTS) per semester which consists of 26,66 hours learning activity, 32.00 hours structure task and 32.00 hours individual learning.
Credit points	2 SKS atau 3 ECTS
Required and recommended prerequisites for joining the module	-
Module objectives/intended learning outcomes	<ol style="list-style-type: none"> 1. Be able to describe the history of arithmetic 2. Understand the history and concept of Pythagoras 3. Understand the history of number symbols 4. Understand the new math understanding



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Content	<p>Students will be learned:</p> <ol style="list-style-type: none"> 1. Introduction Counting in antiquity 2. The oldest historical arithmetic remains in Mesopotamia and Egypt 3. The ideas of the ancient Greeks and their relation to arithmetic 4. Zeno's paradox and errors in arithmetic 5. Calculating before and after Zeno's Paradox 6. Counting after the creation of zero and Counting in old Europe 7. Counting in the age of the rise of science 8. Definition of Pythagoras 9. Mesopotamian and Ancient Egyptian numeral symbols 10. Number Symbols of Ancient Greece and Rome 11. Numerical symbol of Old America, East and South Asia 12. Hindu-Arabic, Old European and present numeral symbols 13. A new interpretation of numbers and counting 14. New understanding of mathematics and various current understandings of mathematics
Examination forms	Assessment of the learning process according to the following components: Final Examination 40%, Middle Examination 30%, assignments 30%
Study and examination requirements	<p>Study and examination requirements:</p> <ul style="list-style-type: none"> - Students must be present 15 minutes before class starts. - Students must turn off all electronic devices. - Students are required to notify the lecturer if they are absent from class due to illness, etc. - Students must turn in all classwork before the deadline. - Students must take the exam to get the final grade.
Reading list	<p>Main Reference</p> <ol style="list-style-type: none"> 5. Berhitung: <i>Sejarah dan Pengembangannya</i>, Dali S. Naga (1980). Jakarta: PT. Gramedia