



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Birth and History of Mathematics							
Course Code		MTE525		Course Level		Second Cycle (Master's Degree)			
ECTS Credit	8	Workload	200 (Hours)	Theory	3	Practice	0	Laboratory	0
Objectives of the Course		The main purpose of this course is to examine the development of number and figure concepts from the emergence of these concepts							
Course Content		Development process and operations about arithmetic from B.C. 50 000 to wadays. Studies about geometry, solids, analytic geometry, modern geometry, geometry tools, algebra, equations, Binom theorem, logarithm, trigonometry, measures, metric system, sets, integral, computers, numbers, structures, solving problem, vectors and graphs. Bibliographies about mathematics scientist.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion, Individual Study, Problem Solving					
Name of Lecturer(s)									

### Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	30
Final Examination	1	70

### Recommended or Required Reading

1	Florian Cajori, Matematik Tarihi, Odtü Yayınları, 2014
---	--

Week	Weekly Detailed Course Contents	
1	Theoretical	Calculus technic, number systems, digits and calculus art in old Egyptions.
2	Theoretical	Old Egypt Geometry.
3	Theoretical	Sumerian Calculus technic, sixty based system.
4	Theoretical	Babylon mathematics, babylon algebra and geometry.
5	Theoretical	Old Greece mathematics, Thales.
6	Theoretical	Pythagorean, Zeno, Demokritus
7	Theoretical	Archytas, Platon, Eudoxus, Aristo.
8	Intermediate Exam	MIDTERM EXAM
9	Theoretical	Euclidean and elements of euclidean.
10	Theoretical	Eratosthenes and Apolonyus, cause of Old Greece Civilisation collapse.
11	Theoretical	Heron, Batlamyus, Diyafont, Pappus, Hypatia.
12	Theoretical	Archimedes, Harezmi.
13	Theoretical	Abdülhamid İbni Türk, Sabit Bin Kurra.
14	Theoretical	Ömer Hayyam, Nasireddin-i Tusi.
15	Theoretical	Mathematics in Islamic Civilisation.
16	Final Exam	FINAL EXAM

### Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	5	3	112
Midterm Examination	1	38	2	40
Final Examination	1	46	2	48
Total Workload (Hours)				200
[Total Workload (Hours) / 25*] = ECTS				8

\*25 hour workload is accepted as 1 ECTS

### Learning Outcomes

1	Express the process of history of mathematics
2	Explain the calculus technic and number systems in old Egyptions.



3	Explain the sumerian Calculus technic and sixty based system.
4	Intrepret the history of zero and Pi number.
5	Explain Babylon mathematics, Babylon algebra and geometry.
6	Explain Mathematics in Islamic Civilisation.

**Programme Outcomes (Mathematics Education Master)**

1	Learns sufficient theoretical knowledge in the field of mathematics education
2	Uses theoretical knowledge in educational settings
3	Integrates mathematics education knowledge with the other disciplines and products functional knowledge
4	Uses information and communication technologies efficiently in conceptual learning
5	Finds scientific solutions to the problems in the field of mathematics education
6	Evaluates the knowledge critically in the field
7	Participates team projects in the mathematics education field
8	Shares national and international data in the field of mathematics education
9	Comprehends and evaluates science-technology-society and mathematics interactions
10	Comprehends mathematics under the ethical values and takes account of ethical considerations
11	Follows the current development in the mathematics education field
12	Develops strategical plans and evaluates them in the context of quality processes
13	Adopts lifelong learning strategies to his/her studies

**Contribution of Learning Outcomes to Programme Outcomes 1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High**

	L1	L2	L3	L4	L5	L6
P1	1	1	1	1	1	1
P3	3	3	3	3	3	3
P5	3	3	3	3	3	3
P6	4	4	4	4	4	4
P9	1	1	1	1	1	1
P13	4	4	4	4	4	4

