

## COURSE OUTLINE

### (1) GENERAL

<b>SCHOOL</b>	SCHOOL OF SCIENCES		
<b>ACADEMIC UNIT</b>	DEPARTMENT OF MATHEMATICS		
<b>LEVEL OF STUDIES</b>	POSTGRADUATE <b>Studies in Mathematics</b>		
<b>COURSE CODE</b>	<b>C6</b>	<b>SEMESTER</b>	
<b>COURSE TITLE</b>	HISTORY OF NON-WESTERN MATHEMATICS		
<b>INDEPENDENT TEACHING ACTIVITIES</b>		<b>WEEKLY TEACHING HOURS</b>	<b>CREDITS</b>
		3	10
<b>COURSE TYPE</b>	SPECIALISED GENERAL KNOWLEDGE		
<b>PREREQUISITE COURSES:</b>	NO		
<b>LANGUAGE OF INSTRUCTION and EXAMINATIONS:</b>	GREEK		
<b>IS THE COURSE OFFERED TO ERASMUS STUDENTS</b>	YES		
<b>COURSE WEBSITE (URL)</b>	<a href="http://www.math.aegean.gr/index.php/en/academics/undergraduate-programs">http://www.math.aegean.gr/index.php/en/academics/undergraduate-programs</a>		

### (2) LEARNING OUTCOMES

<b>Learning outcomes</b>
Objectives of the course are to acquaint students with elements of mathematics through their historical evolution with an ultimate aim to deepening in mathematical science areas, which may be chosen later, during their scientific course. Also, knowledge of mathematics history be exploited in an appropriate way during didactical practice.
<b>General Competences</b>
Search for analysis and synthesis of data and information. Working independently. Team work. Production of free, creative and inductive thinking.

### (3) SYLLABUS

The Beginnings of Mathematics and Ethnomatematics: Measurement, Numbers, Figures. Aztecs, Maya and Incas. Mathematics in Ancient China, Japan, India. The early years of Mathematics in the Middle East: Ancient Egypt, Mesopotamia.

### (4) TEACHING and LEARNING METHODS - EVALUATION

<b>DELIVERY</b>	Face-to-face	
<b>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY</b>	Communication with students via e-mail	
<b>TEACHING METHODS</b>	<b>Activity</b>	<b>Semester workload</b>
	Lectures	39
	Independent study	148.5
	Written assignments	62.5

	Course total (25 per ECTS)	<b>250</b>
<b>STUDENT PERFORMANCE EVALUATION</b>	<p>Student evaluation is done in Greek through weekly written papers and final written work that will be presented to the classroom.</p> <p>For students with disabilities, evaluation takes place via oral exams.</p>	

### (5) ATTACHED BIBLIOGRAPHY

- Martzloff Jean-Claude. (1997). «History of Chinese Mathematics». Berlin Heidelberg: Springer-Verlag.
- Needham Joseph. (1959). Science and Civilization in Ancient China. Cambridge University Press.
- Warden B. L. van der. (1983). Geometry and Algebra in Ancient Civilizations. Springer-Verlag Berlin Heidelberg.
- Folkerts Menso. (2006). The Development of Mathematics in Medieval Europe, Ashgate. Variorum, Ascher M. & Ascher R. (1981) Mathematics of the Incas: Code of the Quipu, Mineola/New York
- Selin, Helaine (Ed.). (2000). Mathematics Across Cultures. The History of Non-Western Mathematics.
- Boyer, C. & Merzbach, U. (1997). Η Ιστορία των Μαθηματικών (μετάφραση Β. Κουσουλάκου). Αθήνα: Εκδόσεις Γ.Α. Πνευματικός.
- Katz, V. (1998). Ιστορία των Μαθηματικών: Μια Εισαγωγή (μετάφραση Κ. Χατζηκυριάκου, Επιμέλεια Γ. Χριστιανίδη). Ηράκλειο: Πανεπιστημιακές Εκδόσεις Κρήτης, 2013.
- Loria, G. (1972). Ιστορία των Μαθηματικών. Αθήνα: Ελληνική Μαθηματική Εταιρεία & Εκδόσεις Παπαζήση.
- Needham Joseph. (1959). Science and Civilization in Ancient China. Cambridge University Press.
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