

Department	Mathematics						
Course Title	History of Mathematics						
Semester	Fall			Spring		X	
Language	Turkish	X		English			
Credit	Lecture	2		Application	-	Total Credit	2
Number of ECTS Credits	3						
Course Type	Undergraduate						
Course Objectives	To teach the critical thinkings of scientists about the past, present and future.						
Course Content	Mathematicians in the Near East : al-Khwarizmi, Abu Kamil, Thabit ibn Qurra, Omar Khayyam, al-Tusi and al-Karashi, Transmission of Arabic Learning to the West, The Story of the Quintic Equation: Ruffini, Abel, and Galois, The Dawn of Modern Mathematics, The Development of Probability Theory:Pascal, Bernoulli, and Laplace, The Revival of Number Theory: Fermat, Euler, and Gauss, Marin Mersenne and the Searchfor Perfect Numbers, The Famous Last Theorem of Fermat, The Prince of Mathematicians:Carl Friedrich Gauss, Nineteenth-Century Contributions: Lobachevsky to Hilbert, The Founders of Non-Euclidean Geometry, Models of the New Geometry: Riemann, Beltrami, and Klein, Transition to the Twentieth Century: Cantor and Kronecker, Extensions and Generalizations: Hardy, Hausdorff and Noether						
Course Prerequisite							
Instructors	Prof. Dr. Recep ŞAHİN			mail : rsahin@balikesir.edu.tr			
Assistant Instructors				mail :			
Internship	none						
Textbook and /or References	D. M. Burton, The History of Mathematics: An Introduction, McGraw-Hill Science, 2005., L. Hodgkin, A History of Mathematics: From Mesopotamia to Modernity, Oxford Univ. Press, 2005., M. Boll, Matematik Tarihi, İletişim, 2003., D. J. Struik, Kısa Matematik Tarihi, Doruk, 2002., R. Mankiewicz, Matematğin Tarihi, Güncel, 2002						
Course Structure							
Planned Learning Activities and Methods							
Course Evaluation Criteria			Course ECTS Calculation Content				
In-Term Studies	Quantity	Percentage (%)	Activities	Quantity	Duration	Total Work Load (Hour)	
Mid-terms	1	%40	Course Duration	14	2	28	
Quizzes			Hours for off-the-c.r.stud	14	4	56	
Assignment			Mid-terms	1	4	4	
Attendance			Final examination	1	4	4	
Practice			Total Work Load: 92				
Project			ECTS Credits: 3				
Final examination	1	%60					
Course Learning Outcomes	To be able to focus on the problems of interpreting the past, and to make relationship between past and present, to be able to give examples of significant applications of mathematics in commerce, science, and general life in past and present, to be able to give information about development of probability theory, to be able to give information about development of number theory, to be able to give information and examples about new geometry models.						

Weekly Detailed Course Contents												
Week	Topics	Study Materials					Materials					
1	Mathematicians in the Near East : al-Khwarizmi, Abu Kamil, Thabit ibn Qurra, Omar Khayyam, al-Tusi and al-Karashi											
2	Transmission of Arabic Learning to the West											
3	The Story of the Quintic Equation: Ruffini, Abel, and Galois											
4	The Dawn of Modern Mathematics											
5	The Development of Probability Theory:Pascal, Bernoulli, and Laplace											
6	The Revival of Number Theory: Fermat, Euler, and Gauss											
7	Marin Mersenne and the Searchfor Perfect Numbers											
8	The Famous Last Theorem of Fermat											
9	The Prince of Mathematicians:Carl Friedrich Gauss											
10	Nineteenth-Century Contributions: Lobachevsky to Hilbert											
11	The Founders of Non-Euclidean Geometry											
12	Models of the New Geometry: Riemann, Beltrami, and Klein											
13	Transition to the Twentieth Century: Cantor and Kronecker											
14	Extensions and Generalizations: Hardy, Hausdorff and Noether											
Contribution of Learning Outcomes to Programme Outcomes		5	4	5	5	4	5	5	4	4	5	5