

BALIKESİR UNIVERSITY
NECATİBEY FACULTY OF EDUCATION
UNIVERSITY ELECTIVE COURSE PROPOSAL FORM

Department / Program	Department of Mathematics and Science Education / Mathematics Education									
Course Title	Paradoxes									
Semester	Fall	X		Spring	X					
Language	Turkish	X		English						
Credits	Theory	2		Application	0		Total	2		
ECTS	3									
Type of Program	Formal Education					Face to face				
Course Objectives	The aim is to develop individuals' critical thinking and logical analysis skills.									
Course Content	Paradoxes									
Course Prerequisites	There are no prerequisites for this course.									
Instructor	Prof. Dr. Nazlı YILDIZ İKİKARDEŞ				mail: nyildiz@balikesir.edu.tr					
Course Assistants	-				mail: -					
Course Internship Status	The course has no internship.									
Course Resources	- Falletta, N. (2014). The Book of Paradoxes (Trans. M. Doğan). Boğaziçi University Press. - Smullyan, R. (2015). What is the Name of This Book? (Trans. N. Arık). TÜBİTAK Popular Science Books. - Sertöz, S. (2002). The Bright World of Mathematics. TÜBİTAK Popular Science Books.									
Course Category	Mathematics and logical inconsistency									
Planned Learning Activities and Methods	Inquiry, Question-Answer, Critical Thinking									
Course Evaluation Criteria			Course ECTS Calculation Content							
Semester Studies	Quantity	Contribution (%)	Activity	Quantity	Duration	Total Work Load (Hour)				
Mid-terms	1	40	Course Duration	14	2	28				
Short Exam			Out of Class Work Duration	14	1	14				
Homework			Midterm Exams	1	20	20				
Attendance			Final Exam	1	20	20				
Practice			Total Work Load: 82							
Project			ECTS Credits : 3							
Final Exam	1	60								
Learning Outcomes	Can identify logical inconsistencies and paradoxes encountered in everyday language and scientific texts. Can explain the relationship between abstract mathematical concepts and the social sciences. Can develop counter-arguments by approaching a problem from different perspectives.									
Course Topics			Pre-Study					Materials		
Week	Topic									

1	What is a paradox?	Preliminary research of the relevant subject	Course resources and presentations
2	Epimenides of Crete and the Liar Paradox	Preliminary research of the relevant subject	Course resources and presentations
3	Zeno and the Illusion of Motion	Preliminary research of the relevant subject	Course resources and presentations
4	The Paradox of Destiny	Preliminary research of the relevant subject	Course resources and presentations
5	The Ship of Theseus	Preliminary research of the relevant subject	Course resources and presentations
6	The Barber Paradox	Preliminary research of the relevant subject	Course resources and presentations
7	The Infinity Hotel	Preliminary research of the relevant subject	Course resources and presentations
8	Midterm Exam	Preliminary research of the relevant subject	Course resources and presentations
9	The Three Doors Paradox	Preliminary research of the relevant subject	Course resources and presentations
10	The Unexpected Exam Paradox	Preliminary research of the relevant subject	Course resources and presentations
11	The Abilene Paradox	Preliminary research of the relevant subject	Course resources and presentations
12	The Prisoner's Dilemma	Preliminary research of the relevant subject	Course resources and presentations
13	The Lottery Paradox	Preliminary research of the relevant subject	Course resources and presentations
14	Visual Paradoxes	Preliminary research of the relevant subject	Course resources and presentations
15	Evaluation	Preliminary research of the relevant subject	Course resources and presentations

Contribution of Learning Outcomes to Program Outcomes

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