TITLES	EXPLANATIONS
Title of Course	Basic Mathematics
Code of Course	PSK 111
Type of Course	Compulsory
Level of Course	Undergraduate
Year of Study	1
Semester/Trimester	1
Number of ECTS	5
Name of Lecturer(s)	Dr. İbrahim İbrahimoğlu, Instructor
Course Learning Outcomes	At the end of this course students are expected to; LO1. Develop their skills for mathematical thinking and problem solving. LO2. Develop positive attitudes towards mathematics in general and related fields. LO3. Comprehend the mathematical and conceptual logic beneath the mathematical computations. LO4. Construct right and effective problem solving algorithms. LO5. Learn the frequently used concepts like ratio, proportion, probability, etc. used in statistics courses and use this knowledge to solve various problems. LO6. Learn about numbers and number systems.
Mode of Delivery	The style of teaching is face-to-face interaction.
Prerequisites and Co-requisites	There is no prerequisite or co-requisite for this course.
Recommended Optional Programme Component	None
Course Contents	1. Evolution of Logic 2. Evolution of Thoughts 3. Production of Scientific Knowledge 4. Algebra of Propositions 5. Algebra of Propositions 6. Algebra of Sets 7. Predicate Logic 8. Midterm 9. Order Relations, Equivalence Relations 10. Functions 11. Natural Numbers, Integers, Rational Numbers 12. Real Numbers, Complex Numbers 13. The Notion of Infinity 14. Paradoxes
Recommended or Required Reading	(Primary Textbook) Barnett, R. A., Ziegler, M. R., Byleen, K. E., & Sobecki, D. (2011). *Precalculus (7th Ed.)*. Boston: McGraw Hill. (Suggested References) Yıldırım, C. (1988). *Matematiksel düşünme.* İstanbul: Remzi Kitabevi. * The primary textbook for this course is renewed every year.
Planned Learning Activities and Teaching Methods	This course is conducted through lectures and discussions (a) using visual material (graphs, etc.) and (b) exercises for problem solving. It is important that the students are able to solve these problems not only mathematically but also conceptually. The instructor also leads in-class discussions when necessary. The purpose is not to memorize a certain problem solving method or a necessary formula but to support the development of a logically valid problem solving algorithm for various problems.
Assessment Methods and Criteria	1 Midterm, 1 Final Exam
Language of Instruction	Turkish
Practicum	None

Course Learning Outcomes / Program Outcomes	LO1	LO2	LO3	LO4	LO5	LO6
Analyze problems with the scientific method and appropriate scientific tools.	X		X	X	X	X
Think critically and creatively, ask questions, make comments using the knowledge and skills they have acquired.	X		X	X		
Develop a positive attitude toward life-long education.			X			
Use the library, scientific databases, internet and other sources effectively.			X			
Have the skills to find out, analyze, evaluate, decide about, and apply the alternative solutions to problems.	X		X	X		
Be open-minded to use knowledge stemming from different disciplines and/or areas of psychology.		X	X		X	X
Develop a positive attitude toward critical thinking.						
Have advanced theoretical and applied knowledge of psychology supported by contemporary course material.						
Have the necessary knowledge and skills to analyze and synthesize the main areas of psychology.						
Be competent in English and Turkish.						
Use effective methods to present, share and discuss scientific information.						
Be able to write scientific papers by using international manuals such as APA.						
Show courage and use the necessary skills to propose solutions to the problems of the world they live in.						
Show courage and have necessary skills to propose solutions to the problems of their own life.						
Have a positive attitude to statistics and be able to use common statistical software packages.						
Be able to plan and conduct research independently.						
Apply qualitative and/or quantitative methods depending on the nature and the scope of a given problem.						
Know the research methods and statistical procedures used in behavioral sciences.						
Use tools such as questionnaires, inventories, scales, and tests.						
Apply psychological knowledge to other problem areas for community welfare.						
Use theoretical and applied knowledge in accordance with ethical standards.						