

DISCIPLINE DESCRIPTION

"Foundations of Higher Mathematics "

1	Specialized module	Foundations of Higher Mathematics	
2	Specialty	1-23 01 04; Psychology	
3	Course of Study	1	
4	Semester	1	
5	Credit units	3	
6	Degree, title, full name of lecturers	Senior lecturer Borodina T.	
7	Objectives	Development of skills and abilities to identify and formulate problems that arise in theoretical and applied psychology and choose adequate mathematical models and methods for solving them, to study independently of additional sections of modern mathematics.	
8	Prerequisites	Statistical Methods in Psychology, Psychodiagnosis, Methodology, theory and methods of psychological research	
9	Syllabus	<p>The program of the academic discipline "Foundations of Higher Mathematics" contains important sections that cover the main areas of application of the mathematical apparatus in psychology.</p> <p>The main issues under study:</p> <ul style="list-style-type: none"> — set theory; — elements of statements logic; — elements of linear algebra; — foundations of mathematical analysis; — elements of the theory of probability 	
10	References	<p>1. Письменный Д.Т. Конспект лекций по высшей математике. Письменный – Москва: Айрис-пресс, 2017. – 608 с.</p> <p>2. Выгодский, М.Я. Справочник по высшей математике / М.Я. Выгодский. – Москва: Издательство АСТ, 2019. – 703, [1] с.: ил. – (Справочники Выгодского).</p> <p>3. Рябушко, А.П. Высшая математика: теория и задачи : учеб.пособие. В 5 ч. Ч. 1. Матрицы и векторная алгебра. Аналитическая геометрия. Дифференциальное исчисление одной переменной / А.П. Рябушко, Т.А. Жур, 2-е изд. – Минск : Вышэйшая школа, 2019. – 303 с. : ил.</p>	<p>Полный текст</p> <p>Выгодский</p> <p>Вышэйшая школа</p>
11	Teaching Methods	Explanatory-illustrative, reproductive, partial-research, comparative, problematic, dialogue-heuristic, research, generalizing, analytical	
12	Tuition Language	Russian	