

**Academic discipline:  
«Probability theory and mathematical statistics»**

<b>Code and name of specialty</b>	1-23 01 05 Sociology
<b>Training course</b>	1
<b>Semester of training</b>	1
<b>Number of class hours:</b>	16
<b>Lectures</b>	8
<b>Seminar classes</b>	8
<b>Practical classes</b>	-
<b>Laboratory classes</b>	-
<b>Form of current assessment (credit/differential credit/exam)</b>	exam
<b>Number of credits</b>	3
<b>Competencies to be formed</b>	Mastering the academic discipline « <b>Probability theory and mathematical statistics</b> » should ensure the formation of basic professional competencies: to apply the methods of probability theory and mathematical statistics in sociological research; to use statistical procedures and methods in the analysis of empirical sociological information.

**Summary of the content of the academic discipline:**

«**Probability theory and mathematical statistics** » is an academic discipline that introduces to the basic methods for constructing and analyzing mathematical models of random phenomena to students. The content of the discipline includes work in the following areas: teaching students the theoretical fundamentals of methods of solving problems of probability theory and mathematical statistics, and also familiarity with the methods of their possible application in practice and includes several stages: familiarizing students with the basic concepts of probability theory and mathematical statistics, consolidating the material by solving typical problems and exercises, and also the practical implementation of specific sociological problems with the involvement of modern computer technology; clarification of the essence of the scientific approach to the description and research of real social processes, in the development of students' ability to logical and algorithmic thinking, skills, knowledge and methods of research and solution of mathematically formalized problems.