Level: PhD

Course title: Pedagogical statistics DM003H1

Status: elective

ECTS: 15

Requirements: none

Learning objectives

Introduction to pedagogic statistics and its applications in educational research.

Learning outcomes

Mastering and application of statistics in research projects.

Syllabus

Theoretical instruction: Statistics, educational statistics and its branches. Basic concepts of educational statistics: statistical unit, features of the unit. The scales of the numerical expression data. Organizing data. Organization of arrangement. Graphical representation of pedagogical issues. Characteristics of the frequency distribution. Mean values (mode, median, arithmetic mean). Measures of dispersion (range of variation, Quartile deviation, mean deviation, standard deviation, coefficient of variation). Normal distribution curve. Statistical procedures for calibration. Production and use of a standardized scale deviations. Transformation of standardized symbols (T scale, C scale). Correlation and regression. Pearson's correlation coefficient. Rank correlation. Curvilinear correlation. Biserial correlation coefficient. Partial correlations. Multiple correlations. Method patterns. A simple random sample. Estimation of the proportions of the basic set. Sample size. Testing hypotheses - the null hypothesis. Selection of the level of significance. Application of the chi-square test hypotheses. Other types of samples. Systematic sample. Stratified sample. Deliberate pattern. Use of computers and software for statistical data processing.

Practical instruction:

Lectures (2 hours per week, during the semester), creation and discussion of work - creation and implementation of the project with the prior approval of topics.

Weekly teaching load				Other:
Lectures: 5	Exercises:	Other forms of teaching:	Student research: 5	