

Study program: Special Education and Rehabilitation for Persons with Difficulties in Mental Development			
Type and level of studies: Master academic studies			
Title of the subject: Methodology of scientific research with statistics			
Lecturer: Tatjana S. Mentus; Predrag R. Teovanović			
Course status: Obligatory			
ECTS: 9			
Prerequisites: No prerequisites			
Aim The goal of this course is to provide learning experiences that help students to understand, interpret and run experimental and correlational studies. Course is designed to equip students with knowledge and skills necessary to critically evaluate, but also to carry out basic empirical research, including writing of research proposal, selection of adequate methods and techniques for data collection, performing data analysis and reporting on results of study.			
Outcomes After course completion, students should be comfortable understanding and critiquing the design of studies, the generalizability of the studies, the instrumentation of studies, and the basics of the statistics of studies. Also, students should be able to design and run basic empirical research, collect empirical data, statistically analyze data and report on results.			
Content <i>Lectures</i> Scientific research. Types of research. Study design. Sampling. Variables. Relations among variables. Data collection methods. Levels of measurement. Creating dataset. Descriptive statistics (frequencies, central tendency measures, measures of variability, measures of association). Normal distribution. Standard scores, percentiles and other transformations. Parameter estimation. Student's t-test for independent and paired samples. One-way and two-way analysis of variance. Correlational analysis. Regression analysis. Chi-square test. Nonparametric tests. Reporting on results of empirical studies. Basic rules of academic writing. <i>Practical work</i> Writing research proposal. Statistical analysis of real-world data and reporting on results.			
Literature Todorović, D. (2008). <i>Metodologija psiholoških istraživanja</i> . Beograd: Centar za primenjenu psihologiju. Fajgelj, S. (2007). <i>Metode istraživanja ponašanja</i> . Beograd: Centar za primenjenu psihologiju Petz, B. (2004). <i>Osnovne statističke metode za nematematičare</i> . Naklada Slap. Zagreb.			
Number of active classes per week	Lecture: 4	Practical work: 4	
Teaching methods: Lectures, group discussions, individual assignments			
Evaluation of knowledge (maximum score 100)			
Pre obligations	Score	Final exam	Score
activities during lectures	10	written exam	60
practical teaching	10	oral exam	
midterm(s)	10		
seminars	10		