

Type and level of studies: PhD				
Title of the study program: (303) Statistics				
Subject title: Sampling Theory and Planning of Experiments 1 D				
Subject code: DTUP				
Number of ECTS: 9				
Subject status (Compulsory / Elective):				
Teacher/s (Name, last name):): Ljiljana M. Petrović				
Number of active teaching lessons:				Other lessons
Lectures:	Practice classes: 3	Other forms of teaching:	Study research work: 3	
Prerequisite:				
Subject objective: The main objective of this course is for students to learn the classical theory of the samples (for the finite population). In sampling theory are shown different ways of selecting samples, evaluation on selected samples and methods of analysis of the collected data. In planning of experiments they learn about different experimental designs.				
Subject outcome (gained knowledge): Students learn about different methods of sample selection, the evaluation of the selected samples and about applications of different experimental designs.				
Subject content/structure: 1) Sampling theory: Population, sample. Simple random sampling. Unequal probability sampling. Stratified random sampling. Systematic sampling. The use of auxiliary data with ratio and regression estimation. Cluster sampling. Multistage design. Double sampling. Sampling errors. 2) Planning of experiments: Design and analysis of experiments. Completely random design. Random block designs Latin-square design. Factorial experiments.				
Teaching methods:				
Grading (maximum number of points 100)				
Pre-examination obligations	Points	Final exam	Points	
Activities during lectures		Written exam		

Practice lessons 40			Oral exam 60	
Colloquium/a			
Semester papers				
Literature:				
No.	Author	Title	Publisher	Year
1.	Lj. Petrovic	Sampling theory and planning of experiments (in Serbian)	Faculty of Economic, Belgrade	2013.
2.	W.G. Cochran	Cochran Sampling Techniques, 3rd edition	Wiley	1997.
3.	D.C. Montgomery	Design and Analysis of Experiments, 6th edition	John Wiley & Sons	2005.
4.	W.G. Cochra nand G.M. Cox	Experimental Designs, 2nd edition	Wiley	1992.