Specification of the course for the Book of courses

Study program		Applied statistics	
Title of the course		Methodologies for Data Collection in Natural and Technical Sciences	
Teachers (for lectures)		Nada Lakić	
Teacher/fellow teacher (for exercises)			
ESPB	6	**Status of the course (obligatory (O) /elective (E))**	O

Conditions	
Aim of the course	The aim of this course is to introduce students to different data types, as well as methods of data collection and representation, samples and estimates based upon them.
Course outcomes	Upon completion of the course, students will be able to independently plan and manage projects to collect data.
Content of the course	
Theoretical classes	The basics of data collection: problems and hypotheses, constructs and indicators, variables and their relationships. Preparation for data collection I: Sample and sampling, control of external influences. Preparation for data collection II: Additional information about the data, data types and levels of measurement. Tabular and graphical representation of the data. Data collection methods. Comparability of statistical series.
Practical classes	The central part of practical training will be dedicated to making a number of different plans of research. Doing so the educational background of each student will be taken into account, as well as her / his personal research interests.
References	
1	Петровић Љ. (2000): Теорија узорака и планирање експеримената, Економски факултет, Београд.
2	Маринковић-Ерић J. ...(и др), (2001): Статистика за истраживаче у области медицинских наука, Медицински факултет, Београд
3	Мирић, С. (1950): Пољопривредна статистика, Научна књига, Београд.
4	Haaland, D. P.(1989) Experimental design in Biotechnology, Marcel Deker, New York
5	Thompson K. S. (2002):Sampling, John Wiley & Sons, New York

The number of contact hours per week during the semester / trimester / year

Lectures	Exercises	DON	Research work	Other classes
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Teaching methods	Lectures, exercises and practical work

Evaluation of knowledge (maximum score 100)

Pre exam duties	points	Final exam	points
Activities during lectures	5	**written exam**	25
Practical work	10	**oral exam**	40
Seminar	20		