Specification of the course for the Book of courses

Study program		Applied statistics	
Title of the course		Methodologies for Data Collection in Social and Medical Sciences	
Teachers (for lectures)		Tatjana Ille	
Teacher/fellow teacher (for exercises)		Milan Gajić, Tamara Naumović	
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 methods of data collection. Beginning of the course is intended for the basics of data collection: problems and hypotheses, variables and events. Then, students will get known with the control of research, samples and additional information about the data, data types and levels of measurement, longitudinal data and data in one section of time. Special attention will be also paid to specific types of data, from those that are generated by computer simulation (modeling), epidemiological data and clinical data. Ethical and practical aspects of data collection will be demonstrated.
Course outcomes	Upon completion of the course, students will be able to independently plan and manage projects to collect data. In doing so, they will have detailed knowledge of the ethical protocols.
Content of the course	
Theoretical classes	The basics of data collection: problems and hypotheses, 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. Experimental research. Quasi-experiment. Observation, interviewing and testing. Longitudinal data and data in one section of time. Computer modeling. Collecting data in epidemiology. Clinical studies and N = 1 experiments. Meta data and meta-analysis. Ethical and practical approach to data collection.
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	Locke, L. F., Silverman, S. J., & Spirduso (Eds.). (2010). *Reading and Understanding Research*. Thousand Oaks, CA: Sage.
2	Marczyk, G. R., DeMatteo, D., & Festinger, D. (2005). *Essentials of Research Design and Methodology*. Hoboken, NJ: John Wiley & Sons.
3	Laake, P., Benestad, H. B., & Olsen, B. R. (2007). *Research Methodology in the Medical and Biological Sciences*. Amsterdam: Elsevier.
4	Bergh, D. D., & Ketchen, D. J. J. (Eds.). (2009). *Research Methodology in Strategy and Management*. Bingley, UK: Emerald Group Publishing.
5	Gast, D. L. (2010). *Single Subject Research Methodology in Behavioral Sciences*. Oxon, UK: Routledge.

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
Colloquia	30	**oral exam**	50
Practical work	20		