Specification of the course for the Book of courses

Study program		Applied statistics	
Title of the course		Statistical Methods in Medicine	
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 the course is learning the basic concepts and understanding principles, techniques and methods of statistics, as well as application of statistics in medicine and related fields.
Course outcomes	This course enables student to understand basic principles of statistics in medicine and related fields, and to apply the adequate statistical apparatus for solving specific problems in that area. Student will be able to use software compatible for applications in thse fields and will be introduced to corresponding typical examples.
Content of the course	
Theoretical classes	Testing hypotheses for one and two samples: Inference on difference: parametric methods: Z-test, T-test; non-parametric methods: chi-squared test, comparison of observd frequencies with theoretical distribution, Exact probability test, Median test, MacNamara test, Sign test, Equivalent pairs test, Rank sum test, Simple linear regression, Categorical data and dichotomous variables
Practical classes	Presentation of models typical for medical statisitcs, solving problems using specific software.
References	
1	С. Јаношевић, Р Дотлић, Ј Ерић- Маринковић: Медицинска статистика, Медицински факултет, Београд, 2000
2	Riffenburg H. Robert Statistics in medicine, 2nd edition, Naval Medical Center, San Diego, California, Elsevier
3	Armitage P., Berrry G., Matthew S. Statistical methods in medical research 4th edition, Blackwell Science
4	Chernick, M. R., Friis, R. (2003). Introductory Biostatistics for the Health Sciences Modern Applications Including Bootstrap, Princeton, New Jersey
5	GP Quinn and MJ Keough, 2002. *Experimental Design and Data Analysis for Biologists*. Cambridge: Cambridge University Press

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

Lectures	Exercises	DON	Research work	Other classes
2	2	----	------	------

Teaching methods	Lectures and exercises, case studies, writing reports about performed analysis

Evaluation of knowledge (maximum score 100)

Pre exam duties	points	Final exam	points
activity during lectures	5	Oral exam	40
practical work	15		
colloquia	20		
seminar	10		