Specification of the course for the Book of courses

Study program		Applied statistics	
Title of the course		Statistics IV	
Teachers (for lectures)		Vesna Jevremović	
Teacher/fellow teacher (for exercises)		Marko Obradović	
ESPB	6	**Status of the course (obligatory (O) /elective (E))**	E

Conditions	
Aim of the course	The aim of the course is to introduce student to som methods of mathematical statistics and their applications.
Course outcomes	Student will be able to find parametre estimates, using both traditional and Bayesian methods. Also, he will be able to perform non-parametric goodness of fit tests.
Content of the course	
Theoretical classes	Point estimation in large samples. Method of moments. Unbiasedness and consistency. Maximum likelyhood method. Bayesian procedure and credible intervals. Non-parametric inference. Pearson's chi-squared test. Kolmogorov-Smirnov test. Tests for normality.
Practical classes	Practical classes follow theoretical through solving exercises and examples, using statistical software.
References	
1	Larsen, R. J, Marx, M. L: An Introduction to Mathematical Statistics and its Applications, Pearson, 2006.
2	Cohen, Y., Cohen, J. Y. (2008) Statistics and Data with R, Wiley.
3	Jevremović, V.:Verovatnoća i statistika, Matematički fakultet, Beograd, 2009.
4	Hogg, R. V, Craig, A. T: Introduction to Mathematical Statistics, MacMillan 1978.
5	Knight, K: Mathematical statistics, Chapman & Hall, 1999.

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
homework	10	**Oral exam**	50
colloquia	40		