Specification of the course for the Book of courses

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

Conditions	
Aim of the course	The aim of the course is to introduce student to concepts of statistical inference: interval estimation and statistical hypotheses testing.
Course outcomes	Student will be able to find interval estimates for the parametres of normal and binomial distributions based on sample. He will be able to formulate and test different statistical hypotheses.
Content of the course	
Theoretical classes	Student's, chi-squared and F distribution. Confidence intervals for parametres of normal distribution. Confidence interval for difference of means for two normal populations. Confidence interval for proportion. Testing of statistical hypotheses. Null and alternative hypothesis. Level of significanc, power, and P-value. Inferences on parametres of normal distributions. Testing equality of the means for two normal populations (indpendent and paired t-test). Inference on proportion (Z-test). Non-parapmetric inference. Tests for median. Wilcoxon tests for one and two samples. Chi-squared test for independence. Inference on correlation coefficient.
Practical classes	Practical classes follow theoretical through solving exercises and examples.
References	
1	Milton J.J, McTeer P.M, Corbet, J.J: Introduction to Statistics, Mcgraw-Hill, 1997.
2	Jevremović, V.:Verovatnoća i statistika, Matematički fakultet, Beograd, 2009.
3	Grinstead, C. M, Snell J. L.: Introduction to Probability
4	Soong, T. T.: Probability and Statistics for Engineers, John Wiley & Sons, 2004.
5	Jevremović, V, Mališić, J: Statističke metode u meteorologiji i inženjerstvu, Beograd 2002.

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

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

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		