Dzemal Bijedic University of Mostar Faculty of Civil Engineering Department: General		
Subject title:	**ENGINEERING STATISTICS**	**Code: GBA11**
Cycle level, years of study, semester	**Undergraduate / I cycle**	**I year / II semester**
Lecturer on the subject:	Ass.prof.dr. Marko Ćećez	
Contact details:	e-mail: marko.cecez@unmo.ba	
Total number of subject hours:	**Lectures 30; Exercises 0**	
Credit value ECTS-a:	**3 ECTS**	
Basic Qualification:	Statistical analysis and use of data	
Subject status:	Mandatory	
Preliminary Examination Obligations	N/A	
Access limitations on the subject:	N/A	
Explanation of ECTS value:	Classes: 30 hours of lectures and exercises; Individual and other student work: 45 h	
Subject goal:	The aim of the course is for students to acquire knowledge from the basics of probability theory and statistics, and the application of probability theory in statistics, in order to better monitor and master the structure of certain professional courses which uses these important and meaningful areas of modern mathematics.	
Description of general and specific competences (knowledge and skills) / learning outcomes	Knowledge of statistical processing and how to use processed data for the needs of construction.	
Course content:	Introductory considerations on probability calculation. Independence and conditional probability: Concepts and basic properties of independent events and conditional probability. The formula of complete probability. Bayesian formula. Numerical parameters of random variables: Mathematical expectation, dispersion, standard deviation, variance, coefficient of variation and covariance. Moments of higher ranks. Correlation coefficient. Important discrete and continuous distributions. Convergence in probability theory and laws of large numbers. Introduction to statistics. Population, characteristic and random sample. Sample statistics. Sample estimates based on the sample. Testing statistical hypotheses: Basic tests for testing parametric and nonparametric statistical hypotheses. Approximation theory. Discrete approximation to minimal squares.	
Teaching methods / learning methods:	Lectures, consultations, etc.	
Other Student Obligations (if Predicted):	Active participation in class	
Assessment Methods / Methods of Examination	Colloquium I: 25 points, Colloquium II: 40 points, Colloquium III: 35 points The minimum number of points is 55. Students who do not pass the exam through the colloquium are required to take the integral part of the exam, and the points from the colloquium are canceled.	
List of basic literature and Internet web references:	1. Isić S., Pobrić S., Hadžović R.: Kvantitativne metode u inžinjerstvu i biznisu, Univerzitet „Džemal Bijedić“ u Mostaru, 2016. 2. Merkle M.: Vjerovatnoća i statistika, Beograd, 2006. 3. Montgomery D. C., Runger G. C., Hubele N. F.: Engineering Statistics, 5th Edition 4. Lecture notes	
Quality assurance and performance of the subject	Anonymous survey among students on teaching performance	