

Course title: Probability and Statistics

Course Basic Information			
Academic Unit:	Faculty of Civil Engineering		
Course title:	Probability and Statistics		
Level:	Bachelor		
Course Status:	Elective		
Year of Study:	I first, second semester		
Number of Classes per Week:	2+1		
ECTS Credits:	3		
Time /Location:	According to the time table		
Teacher:	Prof.Dr.Abdullah Zejnullahu		
Contact Details:	email: abdullah.zejnullahu@uni-pr.edu www.fn.uni-pr.edu		
Course Description:			
Course Description:	The course deals with knowledge from statistics and numerical methods related to facilitating the acquisition of knowledge from other subjects and the application of knowledge in civil engineering.		
Course Goals:			
Course Goals:	Introduction to knowledge of mathematical statistics and probability theory necessary for application in mathematical concepts in the field of civil engineering.		
Expected Learning Outcomes:			
Expected Learning Outcomes:	<p>Upon completion of this course / subject / student will be able to use and understand correctly the notions of probability and mathematical statistics, in order for that knowledge to help as an aid in other subjects where the apparatus of probability and mathematical statistics is applied. and then applied it especially to concrete problems related to the field of construction engineering.</p> <p>Students must be able to:</p> <ul style="list-style-type: none"> - understand the concept of events and communities, types of events and actions with events - to apply the elements of combinatorics in the theory of statistics and in the unification of equally possible events - to define the classical, geometric and axiomatic meaning of probability - to present continuous and discrete random variables - apply some theoretical probability distributions - in the research method to apply knowledge from mathematical statistics, analysis method and descriptive statistics. 		
Student Workload (should be in compliance with student's Learnign Outcomes)			
Activity	Hours	Day/ Week	Total
Lectures	2	15	30
Theory/ Lab Work/Exercises	1	15	15
Practical Work			
Consultations with the teacher	2	3	6

Field Work			
Test, seminar paper	2	3	6
Homework			
Self-study (library or home)	3	4	12
Preparation for final exam	1	3	3
Assessment time (test, quiz, final exam)	1	3	3
Projects, presentations, etc.			
Total			75

Teaching Methods:	<i>Teaching and exercises</i>
Assessment Methods:	<i>First evaluations</i> 20% <i>Second evaluation</i> 20% <i>Exercises assessment</i> 10% <i>Regular presentation</i> 5% <i>Final exam</i> 45%

Primary Literature:	1. A.Zejnullahu ,F.Berisha –Matematika III,1997,Prishtinë 2. Sh. Leka – Teoria e probabilitetit dhe statistika matematike,1998,Tiranë. 3. Marilyn K. Pelosi, Theresa M. Sandifer- Elementary statistics, 2003, USA 4. William Navidi- Statistics for Engineers and Scientists, 2006 USA
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Additional Literature:	1. Ll.Puka – Probabilitetit ,1998,Tiranë. 2. S. Bushati – Ushtrime të zgjidhura të probabilitetit dhe statistikës,1999,Tiranë. 3. W.Feller –An introduction to probability theory and its application,1970,New York 4. B. Ruseti – Teoria e probabilitetit dhe statistika matematike I dhe II,1975,Tiranë. 5 .S.Elzar – Matematikaçka statistika ,1968 ,Sarajevë
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Designed teaching plan	
Week	Title of the Lecture
Week 1:	Algebra of events
Week 2:	Definition of classic, geometric and axiomatic of probability basic theorems
Week 3:	Law of distribution of opportunities-
Week 4:	Case variable parameters
Week 5:	Some distributions, binomen (Bernoulli), point normal distributions
Week 6:	Polynomial, geometric distribution
Week 7:	Pascal distribution, hypergeometric. Exponential distribution, couchy, gauss, beta and hi-square distributions
Week 8:	Moments, generating function
Week 9:	Theorems of unity and inversion
Week 10:	Convergence. Types of convergence
Week 11:	Law of large numbers (lnm)
Week 12:	Basic elements of mathematical statistics
Week 13:	Statistical analysis
Week 14:	Statistical average
Week 15:	Dispersion (distribution) indicators

Academic Policies and Code of Conduct

We start and finish class on time.

Tools used during class must be cleaned and stored away at the end of class.

Mobile/smart phones, and other electronic devices (e.g. iPods) must be turned off (or on vibrate) and hidden from view during class time.

Laptop and tablet computers are allowed for quiet use only; other activities such as checking personal e-mail or browsing the Internet are prohibited.

Note | If a student has more than 3 class assignments evaluated below 50% he/she loses the right on taking the final exam. Evaluation is done from 0-100 %.