

DESCRIPTION OF THE COURSE

GENERAL INFORMATION						
Course Holder	dr.sc. Višnja Jurić					
The name of the college	Statistical Methods for Behavioral Sciences					
Study program	Professional Graduate Study – Business Management - MBA					
Status of the College	Elective course					
Year	2 nd Year					
Point value and method of	ECTS coefficient of student workload 4					
teaching	Number of hours (P+V+S)28+14+0					

DESCRIPTION OF THE COURSE

1.1. Objectives of the course

The aim of the course Statistical Methods for Behavioral Sciences is to introduce students to a set of static methods and tools that enable a better understanding of data in the context of social and behavioral sciences. More specifically, within the course, students will be exposed to the basic concepts of descriptive and inferential statistics such as means, measures of dispersion, probability, basic statistical distributions, correlation, regression, logistic regression, mean comparison, covariance analysis, and factor analysis. A strong emphasis is placed on applying the methods themselves to real problems and data, which allows students to understand the context and nature of the issues within which statistical analysis is useful. All these methods will be implemented in detail in the open statistical program R.

1.2. Requirements for enrolment in the course



1.3. Expected learning outcomes for the course
I1 – Evaluate the advantages and limitations of the learned descriptive and inferential tools
I2 – Connect knowledge from other courses with statistical thinking
I3 – Evaluate the quality of other people's statistical analyses
I4 – Create your own questions within the behavioral sciences that can be answered empirically
I5 – Create hypotheses that can be statistically tested
I6 – Create your own computer codes that implement statistical methods
1.4. Course content
Introduction to Statistical Analysis
Data - what and how to measure
Data analysis: distributions, centers and dispersions of distribution
Examples of statistical modeling
Correlations
Correlation coefficient and confidence intervals
Bivariate correlation, Pearson and Spearman indices.
A partial correlation.
Hypothesis testing
Regression
Simple Regression Assumptions, Interpretation, Visual Representation
Multiple linear regression
Regression diagnostics



Logistic	regression
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Difference from linear regression, the nature of the appropriate data.

Assumptions and diagnostics

Multinomial logistic regression

Comparison of two or more averages; ANOVA methods; factor analysis.

Application of all methods and tools in the open statistical program R.

1.5. Types of teaching (put X)	 lectures seminars and workshops exercises Distance education Field Teaching 	 Independent tasks Multimedia & Network laboratory Mentoring work Other
1.6. Student obligations		
The obligations of students are prescribed in detail by the Statute. Study Regulations, and St	udent Obligations Guidelines	. The key obligations of students

The obligations of students are prescribed in detail by the Statute, Study Regulations, and Student Obligations Guidelines. The key obligations of students are:

ATTENDANCE AT CLASSES: students are obliged to attend classes, actively follow lectures and exercises, and participate constructively in classes, and in order to acquire the right to take the exam, it is necessary to attend classes in the percentages prescribed by the Study Regulations. For each student, their presence in class is recorded through the Infoeduka digital office system. The minimum obligations are;

• Full-time students must attend at least 70% of the total number of classes to be eligible to sign.

• Part-time students need to attend at least 50% of the total number of classes to be eligible to sign.



PASSING EXAMS: in order to achieve a positive grade in the subject, it is necessary to achieve at least 54 points in the subject, but also at least 50% of points for each learning outcome. The method of taking the exam is described in more detail in the item Assessment and evaluation of students' work during classes and at the final exam.

*FINAL EXAM – a student who has not met the conditions for passing the exam during the continuous examination of knowledge (has achieved a total of at least 54 points in the course and has met the lower point threshold of adoption of each learning outcome, i.e. a minimum of 50% of the points of each learning outcome), may take the learning outcomes of the course at the final exam.

WRITTEN EXAM: the student is obliged to take a written exam that verifies the acquisition of theoretical knowledge related to the course. The questions also test the ability to identify, explain and relate key concepts and to make appropriate arguments. The written exam also includes tasks that check the student's acquisition of the material through analytical frameworks.

*CONTINUOUS EXAMINATION: In order to make students progress more efficiently in class, continuous examinations are carried out (2 intermediate exams). In this way, students acquire smaller teaching units and master the subject material more easily.

1.7. Student Work Tracking (Add X to the appropriate tracking format)

Attending classes	х	Teaching activity	Seminar paper	Experimental work	
Written exam	х	Oral exam	Essay	Research	
Project		Continuous Assessment*	Report	Practical work	
Portfolio					

1.8. Assessment and evaluation of students' work during classes and at the final exam

Evaluation and evaluation of students' work during classes and at the final exam is carried out on the basis of the Regulations on Studying of the EFFECTUS University of Applied Sciences.

Allocation of points according to the forms of student work monitoring:



	Attending classes	Written exam	Project	Seminar paper	Practical work	Altogether
11		16				16
12		16				16
13		16				16
14		16				16
15		16				16
16		16				16
OUT OF OUTCOME	4					4
ALTOGETHER	4	96				100



FORMS OF TRACKING	NAME OF LEARNING OUTCOMES	TEACHING METHOD	KNOWLEDGE ASSESSMENT METHOD	Maximum number of points	
	11 Evolueto the	lecture	Essay-problem questions to which an answer is sought, which demonstrates		
	advantages and limitations of the learned descriptive and inferential tools	Asking questions discussion	the identification and definition of key terms, their connection and appropriate argumentation of a higher degree of complexity. They may include problem questions and tasks that need to be argued.		
Written exam		lecture	Essay-problem questions to which an	48	
	12 – Connect knowledge from other courses with statistical thinking	Asking questions discussion	the identification and definition of key terms, their connection and appropriate argumentation of a higher degree of complexity. They may include problem questions and tasks that need to be argued.		
	I3 – Evaluate the quality	lecture	Essay-problem questions to which an		



	of other people's statistical analyses	Asking questions discussion	answer is sought, which demonstrates the identification and definition of key terms, their connection and appropriate argumentation of a higher degree of complexity. They may include problem questions and tasks that need to be argued.	
	14 – Create your own	lecture	Essay-problem questions to which an answer is sought, which demonstrates	
Written evam	questions within the behavioral sciences that can be answered empirically	Asking questions discussion	the identification and definition of key terms, their connection and appropriate argumentation of a higher degree of complexity. They may include problem questions and tasks that need to be argued.	48
written exam	I5 – Create hypotheses that can be statistically tested	lectures	Essay-problem questions to which an answer is sought, which demonstrates the identification and definition of key	
		Asking questions discussion	terms, their connection and appropriate argumentation of a higher degree of complexity. They may include problem questions and tasks that need to be argued.	



		16 – Create your own computer codes that	lecture		Essay-problem questions to which an answer is sought, which demonstrates the identification and definition of key terms, their connection and appropriate argumentation of a higher	
		implement statistical methods	Asking ques discussio	stions i on	degree of complexity. They may include problem questions and tasks that need to be argued.	
Ī	Attending classes	All outcomes	Lectures and e	exercises	Attendance records	4
ſ					TOTAL POINTS	100
Ţ	/pe of student workload		Student Load Hours	ECTS credits		
A	Attending contact classes		42	1,5		
Fi	eld Trips/Visits Outside t	he College				
Ir	dependent study/resear	ch	33	1		
0	ut-of-classroom preparat f seminars/presentations	ion and preparation				
Work on an out-of-classroom project assignment						
lr ti	Independent preparation for exams and exam time		45	1,5		
С	Consultation activities					
0	Other					
T	TOTAL ECTS credits		120	4		



RATING:

In order to achieve a positive grade in the course, the student must cumulatively meet two conditions: achieve a total of at least 54 (fifty-four) points in the course and meet the lower point threshold for the adoption of each individual learning outcome, which is 50% of the total points of the learning outcomes. A student may receive an additional four points if (i) attends classes more than 80% for full-time students and (ii) attends classes more than 55% for part-time students.

Grades are calculated based on the following distribution of points:

SCORE	RATING
0,00 – 53,90	Insufficient (1)
54,00 - 64,90	Sufficient (2)
65,00 – 79,90	Good (3)
80,00 - 89,90	Very good (4)
90.00 and more	Excellent (5)

Grading is carried out in a transparent manner by collecting points. The course is evaluated with 100.00 points (with the possibility of achieving an additional 8 points on the Challenge learning outcome).

CHALLENGE LEARNING OUTCOME - the student has the opportunity to earn an additional maximum of 8 points through the Challenge learning outcome; The student independently chooses one of the activities proposed in the first lesson, and has the opportunity to independently propose an activity with which he wants to increase the number of points and, with the consent of the course holder, achieves them according to the criteria of the course. Points for the Challenge learning outcome are not distributed according to the learning outcomes, but the number achieved makes an additional number of



points to the total number of points achieved according to the learning outcomes.

Before taking the final written exam, each student must meet the prescribed conditions, which primarily means that they have attended the % of classes determined by the Study Regulations and that they have received an electronically encrypted permission to take the exam.

1.9. Required reading and number of copies in relation to the number of students currently attending classes in the course

Title	Number of copies	Number of students				
1. Field, A., Miles, J., & Field, Z. (2012). Discovering	_	-				
statistics using R. Sage publications.						
1.10. Supplementary literature						
2. Cohen, B. H., Lea, R. B., & Welkowitz, J. (2012). Introducto	ry statistics for the behavior	al sciences. John Wiley & Sons.				
3. Privitera, G. J. (2011). Statistics for the behavioral sciences	s. Saga.					
1.11. Ways of quality monitoring that ensure the ac	quisition of output knowledg	e, skills and competencies				
• statistical processing and analysis of exam results (che	cking the Gaussian curve – r	normal distribution of success, comparing and monitoring the				
results of exams of different generations, analysis of understa	nding of individual modules/	questions on the exam, etc.),				
• conducting a survey among students,						
• evaluation and self-evaluation of teachers,						
• achieved results, level of understanding and knowledge during the preparation of the seminar paper,						
• achieved results and level of knowledge presented during the preparation and defense of the final thesis (students who choose a graduate thesis in						
this course),						
 analysis of the report of the Head of the Quality Centre, and 						

• Feedback from students who have already graduated on the usefulness of the content of this course in the performance of the work they do.