DESCRIPTION OF THE COLLEGE

GENERAL INFORMATION		
Course Holder	Ph.D. Jelena Uzelac Ph.D. Višnja Jurić	
Name of the College	Methodology of scientific research	
Study program	Professional Graduate Study *of Business Management - MBA*	
Status of the College	Mandatory	
Code	MBA-MZYR-18	
Year	2nd year of graduate study	
Point value and method of teaching	ECTS Student Workload Coefficient	5
	Number of hours (P+H+S)	28+28+0

DESCRIPTION OF THE COLLEGE

1.1. *Objectives of the course*

The aim of the course is to introduce students to the methodological approach to writing a thesis. Through practical examples, students acquire the knowledge and skills necessary for independent definition and selection of the topic, hypothesis, selection of the methodological framework and selection and citation of literature as well as the application of selected methods of descriptive and inferential statistics.
Students will also get acquainted with the technical rules of writing a paper, the rules of citation and paraphrasing. Special attention is paid to emphasizing the importance of scientific and professional contribution and the rules of ethics in writing a paper.

1.2. *Requirements for enrolment in the course*

There are no prerequisites for enrolling in coelgi. .

1.3. *Expected learning outcomes for the course*

Students should be able to:

1. Distinguish between qualitative and quantitative research models, research objectives and hypotheses.
2. Operationalize research variables and phases of the research process.
3. Select methods and techniques of data collection and processing, as well as a sample and research instruments.
4. Present and defend the structure of the research proposal.
5. Understand the technical formatting of the paper, the rules of citation and paraphrasing.
6. Interpret the results of the research

1.4 The content of the course

Name of the whole		Topic name / Literature		Outcome	
Introduction to the methodology of scientific research	1	Concept and purpose of research, Types of research and Selection of methodological approach (Quantitative methodology, Qualitative methodology).		I1	
	2	Defining the thesis task.		I1	
	3	Defining the area; collecting literature/ Developing a theoretical framework/ Defining goals and research questions.		I1	
Stages of research	4	Formulation of hypotheses.		I2	
	5	Defining Variables and Measurement Scales		I2	
	6	Research Design, Sample Definition, Data Collection Methods, Selection of Research Instruments		I2	
Methods of descriptive statistics Preparation of an individual research	7	Graphical description of the data. Basic methods of descriptive statistics.		I3	

plan	8	Numerical description of data.		I3	
	9	Correlation measures. Scatter diagram. A linear regression model.		I3	
	10	Hypothesis testing. Non-parametric methods. Hi square test.		I3	
	11	Language and style of writing		I4	
Technical appearance of the work	12	Citing, paraphrasing, citing figures and tables in the paper.		I5	
Making a presentation for oral defense.	13	Citation of literature. Formatting the work.		I5	
Discussion of research results.	14	Interpretation of the results of statistical research.		I6	

1.5 Types of teaching	☒ Lectures ☐ Seminars and workshops ☒ Exercises ☐ Distance education ☐ Field Teaching	☒ Multimedia & Network ☒ Independent tasks ☐ Laboratory ☐ mentoring work ☐ other _____

1.6 Obligations of students

Student obligations are prescribed in detail by the Statute, the Study Regulations and the Instructions on Student Obligations. 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 commitments are;

- *Part-time students need to attend at least 50% of the total number of classes to be eligible for a digital signature.*

EXAM: 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 point 1.8.

***WRITTEN EXAM:** Students independently solve a large number of open-ended problem tasks that include data grouping, reading graphic and computer representations, calculating statistical numerical indicators and interpreting the results obtained.*
***PROJECT:** Using computers and statistical software, students analyze the collected data, construct tabular and graphical representations with precise indication of the source, and use software to determine statistical indicators. More advanced methods of linear regression and nonparametric theses (Hi square) are also included in the development of the tasks. All procedures must include a written interpretation of the results obtained in the context of the problem.*

***PRESENTATION:** Students independently present a draft of their own research. In the presentation, it is necessary to state the aim of the research, research hypotheses, dependent and independent variables, proposed methods and sources of literature.*

***SEMINAR PAPER:** Based on their own chosen and defined topic, students should correctly define all methodological aspects of the research. Based on the topic, students define research questions, goals, form research hypotheses and distinguish dependent and independent variables. Based on the designed topic and defined hypotheses, students themselves choose research models that will be able to test the hypotheses and accept/not accept them. In the seminar paper, students should show the correct use and citation of literature in the text and at the end of the paper. In addition to the seminar paper, students should create and correctly fill out the OB52 form or the form used to apply for the topic of the thesis using active verbs.*

***1.7** Monitoring of student work (add X with the appropriate form of monitoring)*

Attendance	x	Teaching activity		Term paper	x	Experimental work	
Written exam	x	Oral exam		Essay		Research	
Design	x	Continuous assessment of knowledge		Paper		Practical work	

Portfolio				Presentation	x		

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

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

In order to improve the efficiency of students in teaching, lectures, exercises, continuous testing of knowledge (two intermediate exams, a presentation, a project and a seminar paper) are carried out. In this way, students acquire smaller teaching units and master the subject material more easily.

The linking of learning outcomes, teaching methods and assessment of learning outcomes is performed as follows:

	Attendance	Written exam	Design	Presentation	Term paper	Total
I1				16		16
I2				16		16
I3		16				16
I4					16	16
I5				16		16
I6						16
OUT OF THE BOX	4					4
TOTAL	4	16	16	48	16	100

FORMS OF TRACKING	*TELUGU OUTCOMES TEACHINGS*	TEACHING METHOD	METHOD ESTIMATES KNOWLEDGE	MAXIMUM NUMBER EVALUATION POINTS
Presentation	*Outcome 1* Distinguish between qualitative and quantitative research models, research objectives and hypotheses.	*Guided training and feedback*	*Oral presentation in class of the research draft with a description of the techniques and methods used and a description of the research goals*	
Presentation	*Outcome 2* Operationalize research variables and phases of the research process.	*Guided training and feedback*	*Oral presentation in class of research draft with a description of at least two hypotheses, definition of dependent and independent variables*	
Written exam	*Outcome 3* Select methods and techniques of data collection and processing, as well as a sample and research instruments.	*Lecture* *Solving tasks on the board* *A Heated Debate*	*Written exam with open-ended assignments*	

Term paper	*Outcome 4* Present and defend the structure of the research proposal	*Guided training and feedback*	*Writing a seminar paper*		
Presentation	*Outcome 5* Understand the technical formatting of the paper, the rules of citation and paraphrasing.	*Guided training and feedback*	*Oral presentation in the class of the draft research with a minimum of two online sources, two professional and scientific publications and one book.*		
Design	*Outcome 6* Interpret the results of the research	*Presentation* *Work on the computer*	*Creating tasks that include searching and collecting data, organizing data into tables and graphs, constructing graphical representations, calculating numerical indicators and interpreting the results obtained.*		

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ATTENDING CLASSES	*All outcomes*	*Lectures and exercises*	*Attendance records*	*4*
TOTAL				***100***

FINAL EXAM – student

Type of student workload	*Hours of student workload*	*ECTS credits*
Attending face-to-face classes	56	2
Field trips/visits outside the college	0	0
Independent study/research	60	2
Out-of-classroom preparation and preparation of seminars/presentations	0	
Work on an out-of-classroom project assignment	0	
Independent preparation for exams and exam time	30	1
Consultation activities	0	0
Other	0	
TOTAL ECTS credits	**150**	**5**

***JUDGING**:*

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.

Grades are calculated based on the following distribution of points:

NUMBER OF POINTS	*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)*

The evaluation is carried out in a transparent manner by collecting points. The course is valued 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 by 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 subject. Points for the Challenge learning outcome are not distributed according to the learning outcomes, but the number achieved is 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 prescribed percentage of classes determined by the Study Regulations and that they have received an electronically encrypted permission to take the exam.

1.9 Required literature 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. Pološki Vokić, N. Sinčić Ćorić, D.; Tkalac Verčič, A. (2011). Manual for Research Methodology, M.E.P., Zagreb.	*5** **students receive compulsory literature in permanent ownership*	*60*
2. Jurić, Višnja (2017). Statistics 2 (selected chapters) -peer-reviewed teaching material ISBN 978-953-56684-3-5	-	-

1.10 Supplementary literature

References: Newbold, P..; Carlson, W.; Thorne,B.; Statistics for Business and Economics, Ninth Edition, Pearson Prentice Hall, 2019

1.11 Quality monitoring methods that ensure the acquisition of output knowledge, skills and competences

- *statistical processing and analysis of exam results (verification of the Gaussian curve – normal distribution of performance, comparison and monitoring of exam results of different generations, analysis of understanding 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,*
- *the achieved results and the level of knowledge presented during the preparation and defense of the final thesis (of students who choose the graduate thesis in this subject),*
- *analysis of the reports of the head of the quality center, and*
- *Feedback from students who have already graduated about the usefulness of the content of this course in the performance of the tasks they are engaged in.*