

General information			
Course co-ordinator	Milan Papić, MSc., Senior Lecturer		
Course title	BUSINESS STATISTICS		
Study programme	Professional undergraduate study Accounting and Finance		
Course status	Obligatory		
Year	Semester	1	II
Value of credits and lecturing procedures	ECTS	5	
	Number of hours (Lectures+Exercises+Seminars)	60 (30+30+0)	

1. COURSE DESCRIPTION	
<i>1.1. Objectives</i>	
<p>To master the basic terms in Business Statistics (statistical population, types, characteristics, data setting, data presentation in tables and graphs, mean values, dispersions and asymmetries, correlation and regression analysis, analysis of time series); to apply knowledge upon task solving using PC (MS Excel); to develop the competence of finding the proper answers to two main problems in the application of statistics:</p> <ul style="list-style-type: none"> - Which type of statistical analysis should be applied in the concrete case? - How to interpret the values received in the statistical analysis? <p>And to connect the acquired knowledge and skills with the contents of other courses and practice.</p>	
<i>1.2. Course enrolment conditions</i>	
None	
<i>1.3. Expected outcomes of the course</i>	
<ol style="list-style-type: none"> 1. to explain the basic terms in Business Statistics (statistical population, types, characteristics, data setting, data presentation in tables and graphs, mean values, dispersions and asymmetries, correlation and regression analysis, analysis of time series) 2. to solve various tasks using PC (MS Excel) 3. to recognize which type of statistical analysis should be applied 4. to interpret the values received in the statistical analysis 5. to connect the acquired knowledge and skills with the contents of other courses and practice 	
<i>1.4. Course contents</i>	
<p>Basic terms in statistics: The term Statistics. Descriptive and Inferential Statistics. Statistical analysis. Statistical characteristics of the units of the statistical population. Entry, grouping, presentation of statistical data in tables and graphs: Entry of statistical data. Grouping of statistical data. Pivot-table, Graphic presentation of statistical data. Mean values: arithmetic, geometric and harmony mean value. Mode. Media. Quartiles. Dispersion measures: Range of variation. Inter-quartile and co-efficient of quartile deviation. Variance, standard deviation and variation co-efficient. Normal distribution, measure of asymmetry and skewness. Correlation and regression analysis: Pearson's co-efficient of linear correlation. Spearman's co-efficient of range correlation. Linear-exponential and double logarithm regression model. Basic statistical indicators of time series: continued and base indices. Group indices. Linear and exponential trend.</p>	
<i>1.5. Teaching methods</i>	<input checked="" type="checkbox"/> lectures <input checked="" type="checkbox"/> instruction <input checked="" type="checkbox"/> guided discovery learning <input checked="" type="checkbox"/> discussion <input type="checkbox"/> group/team learning
<i>1.6. Comments</i>	
<i>1.7. Students' obligations</i>	

The condition for acquiring a signature and thus being allowed to take the exam is regular attendance (70% for full time students and 50% for part time students).							
1.8. <i>Monitoring students' accomplishments</i>							
Attendance	0.5	Student's activity during lectures	0.5	Seminar paper		Experimental work	
Written exam	1.5	Oral exam	1	Essay		Research work	
Project		Permanent testing of student's knowledge	1	Written presentation		Practical work	
Portfolio		Independent task solving	0.5				
1.9. <i>Measuring the achievements of learning outcomes and evaluation and assessment of the results of students' work</i>							
The workload factor of each learning outcome stated in the Chapter 1.3. totals 1. A half of the workload factor for each learning outcome represents a minimum threshold for the achievement of the this learning outcome. The control of the acquired knowledge is performed during teaching hours through two mid-term written exams on PC. The condition to take the first mid-term exam is the regular attendance. The condition to take the second mid-term exam is the passed first mid-term exam and regular attendance. Each mid-term exam represents 50% of the total record. If the students have passed both mid-term exams they are not obliged to take the final part of the written exam. The final grade represents an arithmetical mean of the grades in two mid-term exams. The exam is in a written form on PC. The final grade is based on the total sum of grades obtained in the written exam (90%) and the independent task solving (10%).							
1.10. <i>Obligatory literature</i>							
Milan Papić: <i>Primijenjena statistika u MS Excelu (5. izdanje)</i> , Naklada Zoro, Zagreb, 2014.							
1.11. <i>Optional literature</i>							
Vukičević, M.; Papić, M.: <i>Matematičko – statistički priručnik za poduzetnike</i> , Golden marketing – Tehnička knjiga, Zagreb, 2003.							
1.12. <i>Quality control which ensures the acquisition of the corresponding knowledge, skills and competences after the completion of the study.</i>							
At the end of the semester the students fill in an anonymous questionnaire. The comments, suggestions and information in the questionnaire and the evaluation procedures are to be used to improve lectures, exercises and other ways of work with students. Self-evaluation of teaching staff is aimed at making some corrections in order to improve the quality of teaching. The quality control of the course realization is carried out continuously on a number of levels: <ul style="list-style-type: none"> - statistical processing and analysis of the results of written exams (mid-term exams) - anonymous survey among students - evaluation through observation of colleagues and self-evaluation of lecturers - questionnaire on the web (accessible to students and lecturers) - achieved results of the level of understanding and knowledge in the exam - achieved results and the level of knowledge during writing and defending the final examination paper (students who write their final examination paper in Economic Mathematics or who apply a part of its contents in writing their final examination paper) - back-up information from the students who have already completed the study on the usefulness of the contents of this course upon performing their business activities. 							
1.13. <i>Expected competences</i> <ul style="list-style-type: none"> - competence of problem solving in Statistics using the PC (MS Excel). - competence of applying the acquired knowledge and skills in practice 							