



Table 2

Course description

COURSE DESCRIPTION		
Course instructor	PhD Maja Mamula, Assistant Professor	
Name of the course	Elements of Combinatorics and Probability	
Study programme	Management of Sustainable Management	
Status of the course	Elective	
Year of study	4 <sup>th</sup> year	
ECTS credits and manner of instruction	ECTS credits	3 ECTS
	Number of class hours (L+E+S)	30 (15+15+0)
<i>1. Course objectives</i>		
General and specific competencies development needed for a correct and critical understanding, interpretation and analysis of basic theoretical combinatorics and probability concepts and their application in practice.		
<i>2. Course enrolment requirements</i>		
For the course enrolment, students must have previous knowledge in Statistics and Management.		
<i>3. Expected learning outcomes</i>		
After passing the exam of the course of Essentials of combinatorics and probability (3 ECTS) students will be able to:		
<ol style="list-style-type: none"> <li>1. Correctly explain and interpret basic theoretical concepts related to combinatorics and probability;</li> <li>2. Define, describe, and correctly interpret the concepts of permutation, variation and combination;</li> <li>3. Describe and interpret the basics features of probability and the main theorem of probability;</li> <li>4. Critically analyse and interpret simpler individual researches and project assignments and understand journal articles, papers and other publications;</li> </ol>		
<i>4. Course content</i>		
Essentials of combinatorics: The evolution. Definition of combinatorics. Permutations. Variations. Combinations.		
Essentials of probability: Evolution and development phases. Random experiment. Random events. Event probability. Probability theorems. Probability features. Independent events. Conditional probability.		
<i>5. Manner of instruction</i>	<input checked="" type="checkbox"/> lectures <input type="checkbox"/> seminars and workshops <input checked="" type="checkbox"/> exercises <input type="checkbox"/> distance learning <input type="checkbox"/> fieldwork	<input checked="" type="checkbox"/> individual assignments <input type="checkbox"/> multimedia and network <input type="checkbox"/> laboratories <input checked="" type="checkbox"/> mentorship <input type="checkbox"/> other
<i>6. Comments</i>	Lectures, exercises and workshops are complement with each other. Workshops and exercises will allow students to work through the topics covered in the lectures and give the opportunity for questions, discussions and knowledge upgrading.	
<i>7. Student responsibilities</i>		
An individual assignments are designed to enable students to investigate an issue or theme in greater detail and demonstrate the level of achievement in the designed area. Most of the project and research works will take the form of applied workshops. Students may be working in groups, but it is important that the exercises are performed independently by students.		



8. Monitoring of student work <sup>1</sup>							
Class attendance	1,2	Class participation		Seminar paper		Experimental work	
Written exam	0,5	Oral exam		Essay		Research	
Project	0,4	Continuous assessment	0,9	Report		Practical work	
Portfolio							
9. Assessment of learning outcomes in class and at the final exam (procedure and examples)							
Assessment and evaluation of students in classes and at the final exam is conducted under the Rulebook on evaluation of students at the Faculty of tourism and hospitality management. For each course it is made a detailed course syllabus which coordinates activities, student load, learning outcomes and evaluation methods.							
10. Mandatory literature (at the time of submission of study programme proposal)							
1. Baldigara, T., Vjerojatnost i kombinatorika – autorizirana predavanja, Fakultet za menadžment u turizmu i ugostiteljstvu, Opatija, 2011.							
11. Optional/additional literature (at the time of submission of the study programme proposal)							
1. Crnjac, M., Statistika i vjerojatnost za ekonomiste, Ekonomski fakultet u Osijeku, Osijek, 2000. 2. Pauše, Ž., Vjerojatnost, Školska knjiga, Zagreb, 2003. 3. Sarapa, N., Kombinatorika, vjerojatnost i statistika I. dio, Školska knjiga, Zagreb, 2003. 4. Petrović, Lj., Teorija verovatnoća, Centar za izdavačku djelatnost Ekonomskog fakulteta u Beogradu, Beograd, 2006.							
12. Quality monitoring methods that ensure the acquisition of exit knowledge, skills and competences							
The quality of the programme, teaching process, teaching skills and level of acquired course matter will be evaluated in writing, by means of extensive questionnaires and by employing other methods that are in accordance with the accepted standards and with the Book of regulations on the quality of the University of Rijeka, as well as the Book of regulations on the quality of the Faculty of tourism and hospitality management.							

<sup>1</sup> IMPORTANT: Enter the appropriate proportion of ECTS credits for each activity so that the total number of credits equals the ECTS value of the course. Use empty fields for additional activities.