GENERAL INFORMATION		
Course coordinator	**Iva Mrša, PhD, lecturer**	
Course title	**Mathematics**	
Study programme	Undergraduate study: Business Economics in Tourism and Hospitality Module: Hospitality Management	
Course status	Mandatory	
Year	1.	
ECTS credits and form of instruction	ECTS credits	6
	Number of hours (L+P+S)	30+30+0

COURSE DESCRIPTION

1.1. Course objectives

Introduce students to the basic concepts of calculus (analysis of functions), financial mathematics (principles and applications of interest and compounding) and linear algebra (matrices) and train them to recognize and apply these concepts in quantitative economic models. Encourage students to be independent, responsible and empathetic. To motivate students to independent active work, teamwork and public performance.

1.2. Course enrolment requirements

Knowledge from primary and secondary schooling.

1.3. Expected course learning outcomes

Students will be able to:

- Describe the main properties of the field of real numbers
- Analyze functions on the field of real numbers (increase and decrease, speed of change, extreme values)
- Apply derivatives and integrals to economic problems (profitability, elasticity of demand)
- Calculate present and future values of one or more investments
- Apply matrices to the systems of linear equations in economic practice

1.4. Course content

CALCULUS AND APPLICATIONS. (Real numbers and real functions of a real variable, limiting values of functions, derivation with applications, extreme function values, total and marginal cost, revenue and profit, indefinite integral, price elasticity coefficient.)
FINANCIAL MATHEMATICS. (Simple and compound decursive interest calculation, present and future values of rents.)
LINEAR ALGEBRA. (Matrices, vectors, ranks of matrices, systems of linear equations, determinants.)

1.5. Types of teaching (add an 'X')		
	☒ lectures	☒ individual assignments
	☐ seminars and workshops	☐ multimedia and network
	☒ exercises	☐ laboratories
	☒ distance learning	☒ mentorship
	☐ fieldwork	☐ other

1.6. Students' obligations

Apart from calculation assignments in the classroom, students are required to complete project assignments as homework. While teamwork is generally allowed, some assignments require individual research.

1.7. Monitoring students' work (indicate the relevant form of monitoring by adding an 'X')

Course attendance	2	Activity / Participation	0.75	Seminar paper		Experimental work	
Written exam	1	Oral exam		Essay		Research	
Project	0.75	Continuous assessment	1.5	Report		Practice	
Portfolio							

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

Apart from calculation assignments in the classroom student can get points for presenting them in front of other students. Each explanation of the task in front of others carries a maximum of 3 points, it can be applied at a maximum of 4 times. The student has the opportunity to prepare a Project (assignments received as homework) independently or in collaboration with other students and present it to other students, with the use of mandatory and supplementary literature. The maximum number of points that a student can achieve in this way is 12 points. Students are enabled to work in a team, but independent research is also valued.
Assessment and evaluation of students in classes and at the final exam is conducted under the Rulebook on students' evaluation 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.

1.9. Essential reading and the number of copies provided in relation to the current number of course participants

Title	Number of copies	Number of students
Materials authored by the course instructor, and posted on Merlin as part of the Mathematics course.	online	Number of students enrolled in the 1st year.

1.10. Additional reading

L. Neralić, B. Šego, "Matematika", Element, Zagreb, 2009.
K. Šorić, Zbirka zadataka iz matematika s primjenom u ekonomiji, Element, Zagreb, 2011.

1.11. Quality monitoring methods ensuring the acquisition of expected knowledge, skills and competencies

The quality of the program, the teaching process, the teaching skills and the level of the material acceptance will be established by means of a written evaluation of the extensive questionnaires and in

other ways envisaged by the accepted standards, in accordance with the Rulebook on Quality Assurance and Improvement of the University of Rijeka and the Quality Assurance and Improvement of the Faculty of Tourism and Hospitality Management.