

Title of a course	Applied Mathematics				
Study programme	Undergraduate Professional Study Programme of Sustainable Agritourism				
Status of a course	Obligatory				
Year of study	1	Semester	I	ECTS credits	4
Goals of a course					
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Conditions for enrolling course					
No conditions					
Learning outcomes on a level of a study programme which includes course					
<p>Outcome 1: Explain the basic principles of chemistry, biochemistry, microbiology and botany required to work in the field of agriculture.</p> <p>Outcome 6: Apply the principles of spatial planning and design the interior and exterior according to the needs and capabilities of the agritourism farm and the location conditions.</p> <p>Outcome 10: Create entrepreneurial programs in agritourism.</p> <p>Outcome 12: Investigate market characteristics in rural tourism.</p> <p>Outcome 13: Analyse business performance and business documentation in agritourism within the framework of the legislation of the Republic of Croatia.</p>					
Expected learning outcomes on a level of a course					
<ol style="list-style-type: none"> 1. Apply the basics of mathematical analysis to a single variable function. 2. Explain concepts from the basics of mathematical analysis. 3. Solve problems from the basics of financial mathematics. 4. Solve problems from the basics of business mathematics. 5. Apply appropriate mathematical methods in preparing information for business decisions. 					
Content of a course					
<p>Numbers sets. Term, way of defining and some properties of a function. The term domain of a function. Classification of functions. Elementary function. Graphical representation and properties of certain elementary functions. Percentages and permille. Rule of three. Continued ratio. Compound proportion. Interest rate calculus: simple and compound; decursive and anticipative. Nominal, relative and effective interest rate. Periodic deposits and withdrawals. Current and final value of periodic deposits and withdrawals. Loan. Fixed payment quota or fixed annuity, payment at the end or at the end of the term. Conversion of loans.</p>					