


UNIVERZITET U NOVOM SADU  
UNIVERSITY OF NOVI SAD

<b>Course unit Descriptor</b>	<b>Faculty of Economics Subotica</b>	
		
<b>GENERAL INFORMATION</b>		
Study program in which the course unit is offered	ALL	
Course unit title	Business and Financial Mathematics	
Course unit code	OE-102	
Type of course unit <sup>1</sup>	Compulsory	
Level of course unit <sup>2</sup>	First	
Semester when the course unit is offered	First	
Year of study (if applicable)	First	
Number of ECTS allocated	6	
Name of lecturer/lecturers	Otilija Sedlak, Dragan Stojic	
Mode of course unit delivery <sup>3</sup>	Face-to-Face	
Course unit pre-requisites (if any)	-	
<b>PURPOSE AND OVERVIEW (max 5-10 sentences)</b>		
The goal of this course is to review a number of mathematical and statistical concepts and to develop basic arithmetic and algebra skills .The course offers understanding of the basic terms in the areas of linear algebra and calculus and the application to business calculus and financial mathematics.		
<b>LEARNING OUTCOMES (knowledge and skills)</b>		
After completing the course, students are able to understand various quantitative and statistical methods, understand data and draw inference from data, pose and solve financial-based problems by using methods of linear algebra and general calculus.		
<b>SYLLABUS (outline and summary of topics)</b>		

<sup>1</sup> Compulsory, optional

<sup>2</sup> First, second or third cycle (Bachelor, Master's, Doctoral)

<sup>3</sup> Face-to-face, distance learning, etc.

**Theoretical part**

The material covered in the course will include the following topics:

Selected chapters of linear algebra - Vector spaces, linear equations and matrices. Mathematical analysis - Functions and their characteristic: Real functions of one real variable, application of derivatives and integrals to economic functions, Combinatorics and Probability, Elements of financial mathematics – loans and annuities.

**Practical part**

Work on practical tasks, writing of seminar paper

**LEARNING AND TEACHING** (planned learning activities and teaching methods)

Teaching will be done in classrooms, computer labs using appropriate teaching resources (multimedia presentations, software packages, etc.). Teaching takes place through lectures, exercises and independent work. Proof of knowledge is done through written and oral exams.

**REQUIRED READING**

Selected chapters from:

1. Soo T. Tan, Finite Mathematics for the Managerial, Life, and Social Sciences, Cengage Learning, 201
2. Poole, D., Linear Algebra: A modern introduction, Cengage Learning, 2014,

**ASSESSMENT METHODS AND CRITERIA**

Practical work: 10 points

Preliminary exam(s): 20 points

Written exam: 40 points

Oral exam: 30 points

**LANGUAGE OF INSTRUCTION**

English