

	<u>Subject title:</u> BUSINESS MATHEMATICS			
<u>Subject code:</u>	<u>Subject Status:</u>	<u>Semester:</u>	<u>Credit value:</u>	<u>Teaching load:</u>
BS/104	Compulsory	I	6	3L+3T

<u>Study programme:</u> Academic Undergraduate Studies: Financial Management/Marketing
<u>Responsible Staff:</u> Kruna Ratković, PhD; Teaching Assistant: Mirjana Čizmović, MSc
<u>Pre-requisite:</u> Nil
<u>Mode of study</u> Lectures, tutorials, consultations
<u>Assessment:</u> Mid-term tests, final exam
<u>Objectives:</u> To gain knowledge of the fundamental mathematical methods necessary for contemporary education in the field of marketing and finance.

SYLLABUS:

- Determinants and matrices;
- System of linear equations;
- Function of one independent variable: concept, characteristics;
- Sequence;
- Continuity of function, first derivative and differential of function, geometric interpretation;
- Application of derivatives in evaluating a function; indefinite limits;
- Function asymptotes, General scheme for evaluating functions;
- Derivative and differential of function. Examining a function by derivative;
- Function of two independent variables. Partial derivative. Total differential of the first order. Extreme values;
- Integrals;
- Economic functions;
- Percentage calculus, simple interest calculus, discounting;
- Compound interest calculus;
- Loan amortization;

READING LIST AND REFERENCES:

- Chiang, A.C.: *Fundamental Methods of Mathematical Economics*, 3rd Edition, Mc Graw-Hill Book Company, New York, 1984, p 785;
- P.Hess: *Using Mathematics in Economic Analysis*, Prentice Hall, 2002

- M. W. Klein: *Mathematical Methods for Economics*, Addison-Wesley, 2002