

DESCRIPTION AND SYLLABUS

Name of the subject in Hungarian:	Calculus for Business and Economics II.
Name of the subject in English:	Calculus for Business and Economics II.
Credit value of the subject:	6
The code of the subject in the electronic study system:	BN-CALBU2-06-KG
Classification of the subject:	Obligatory
Language of instruction (in case of non-Hungarian courses):	English, Russian
Institute or department responsible for the subject:	Institute of Methodology
Course type and number of contact hours:	Lecture + Practical, class per week: 2+2, class per semester: 0+0
Mode of study: (Full-time / Part-time):	Full-time training
The semester in which the subject is open for registration:	2022/2023 1st semester
Prerequisite(s):	-

THE PURPOSE OF THE SUBJECT, LEARNING OUTCOMES:

The objective of the course is to equip students with the standard tools in probability calculus necessary for carrying out various economic, statistical and business calculations of probabilistic nature.

SUMMARY OF THE CONTENT OF THE SUBJECT

The course is part of the student's mathematical knowledge. A natural continuation of the function analysis is the elementary probability theory and its application to economical problems. Processes in everyday life can be described by probabilities. The main purpose of the subject is to introduce the basics of probability and statistics such as simple events, event relations, classical probabilities, random variables, discrete and continuous probability distributions.

Students should learn and follow the subject week to week in order to be able to build the cornerstones of the course into their education.

STUDENT'S TASKS AND PLANNED LEARNING ACTIVITIES:

Students have to solve the practice problems and in-class exercises related to lecture as well as the seminar part.

EVALUATION OF THE SUBJECT:

Keeping your math knowledge up-to-date, the solutions of the recommended exercises presented in the video tutorials must be uploaded as home works to the Coospace. I am going to make the appropriate tools where you can upload your results. The deadline is one week after the lecture. The reason for that is that your final grade is based on your participation which should be monitored during the semester. Therefore, these exercises/home works will count at the end-term exam (max 50 pts). Solving and submitting them is **COMPULSORY**, provided you want a grade different than 1.

Finally, you should be informed that one passes the course when her/his seminar score is ≥ 25 pts AND the same must be true for lecture/points as well, that is, it must be greater or equal than 25. ($\geq 50\%$). Otherwise, one has to (re)take the online exam in the examination term!

The final grade is calculated according to the following way

0-49 pts- fail (1)

50-62 pts - pass (2)

63-75 pts - satisfactory (3)

76-88 pts - good (4)

89-100 pts - excellent (5)

Offered grade can be given: No.

OBLIGATORY READING LIST:

- Mendenhall, William: *Introduction to probability and statistics*. Brooks/Cole, Cengage Learning, 2013

RECOMMENDED READING LIST:

- Lind, Douglas A.,: *Basic statistics for business and economics*. , 2019
- Ross, Sheldon: *Studyguide for a first course in probability : study guide*. Cram101 Inc., c2010