DESCRIPTION AND SYLLABUS

Name of the subject in Hungarian:	Business Statistics
Name of the subject in English:	Business Statistics
Credit value of the subject:	6
The code of the subject in the electronic study system:	BN-BUSTAT-06-KG
Classification of the subject:	Obligatory
Language of instruction (in case of non-Hungarian courses):	English
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):	[Statistics (fulfillment)]

THE PURPOSE OF THE SUBJECT, LEARNING OUTCOMES:

The objective of this course is to gain an understanding of the available data. If the student can recognize the emerging problem, to perform the correct calculations choosing the proper algorithm, then will be more confident in the decisions made in real life.

The first important thing is to recognize the distribution kind which is suited for a stochastic experiment. The second is to be able to perform the needed calculations with a well-known software (Excel, GeoGebra). The third is to can use the results in correct decision making. After completing this course students will be able to use statistical, graphical and algebraic techniques wherever relevant, to have a proper understanding of Statistical applications in Economics and Management.

SUMMARY OF THE CONTENT OF THE SUBJECT

This subject builds on notion of probability learned in Calculus and important data measures learned in Statistics. Therefore, the first lecture and seminar include a thorough review and a quiz with detailed solution to refresh the basic funds.

The first block of 3 seminars include the most important probability distributions and estimations all presented through various application problems.

The next block of another 3 seminars contains a scientific kind of use of the previous results to base some decisions about confidence intervals and hypothesis tests.

Finally, two lectures will present the chi-square distribution and some tests connected to it, to help getting correct decisions in further important cases.

STUDENT'S TASKS AND PLANNED LEARNING ACTIVITIES:

Students write an on-line quiz on the first seminar as a self-testing opportunity about Descriptive Statistics.

A complex statistical project is performed by 3-student groups. This task requires continuous work on numerical data collected by the members of the group, applying the learnt methods and computer-based calculations. Finally, the results should be explained inside a PowerPoint presentation. Members should indicate their own part in the common work including the performance into their portfolios.

Two midterm tests will include material from 3 and 3 seminars. This individual work shows the ability of choosing proper model and of using Excel/GeoGebra procedures.

The final test connected to lecture will check the general statistical skills developed during the semester solving a complex task.

EVALUATION OF THE SUBJECT:

Tasks during the teaching period

Midterm test #1 written on 5th seminar of 10 points from material of weeks 2-4.
Midterm test #2 written on 9th seminar of 10 points from material of weeks 6-8.

Project started on 1st seminar,
collect and prepare data till 3rd seminar of 5 points,
submit first results till 7th seminar of 5 points
and present on 10th or 11th seminar of 20 points.
The project groups will receive weekly feedback and help with the current partial results.

On the 12th seminar one midterm test can be supplemented or corrected.
If at the end of the 12th seminar the total score is below 25 points, the student will have to re-take the subject on a future semester.

Task in the examination period
If the score is at least 25 points, the student will continue writing a final test from the lecture part. The final test will be a coospace exam of 50 points. If the score obtained will be below 25 the student will obtain a failed (1) grade.
If the score on the final is at least 25 points, the student will get a passing grade from the total of the seminar and final test scores.
Grading:
50-62 points   (2) passed
63-75 points   (3) satisfactory
76-88 points   (4) good
89-100 points (5) excellent
Offered Grade can be obtained for getting Coursera certificates on
- Basic Data Descriptors, Statistical Distributions, and Applications to Business Decisions, and
- Business Applications of Hypothesis Testing and Confidence Interval Estimation
courses from Business Statistics and Analysis Specialization.
The offered grade will be calculated according to the average grade percent obtained converted into our grade.

Offered grade can be given: Yes.

OBLIGATORY READING LIST:

- A. Holmes, B. Illowsky, S. Dean: Introductory Business Statistics, Rice University, Houston Texas, 2018
- D. A. Lind, W. G. Marchal, S. A. Wathen: Statistical Techniques in Business & Economics, McGraw-Hill Education, 2018