

Course syllabus

<u>Title of course in English</u>	Data Management in Excel and SPSS
<u>Language of instruction:</u>	English
<u>Department:</u>	Gazdaság- és Vezetéstudományi Intézet
<u>Type of course</u>	elective
<u>Level of programme:</u>	Erasmus
<u>Number of lessons per week</u>	2 hours/week Semester:
<u>Credit point value</u>	6 ECTS
<u>Code of course:</u>	
<u>Course supervisor:</u>	Dr. László Csink
<u>Lecturer(s):</u>	Dr. László Csink

Course description, purpose of the course:

The aim of the course is to enable the student to perform business statistical analysis using both Excel and SPSS, building on what has been learned in statistics. Each unit lasts for two weeks: first a frontal lecture, second individual and/or teamwork solving example problems using Excel and SPSS.

Course outline, description of acquired knowledge, skills and competences:

Week 1 and 2: Introduction

Paradoxes in statistics, sampling, statistical databases, measuring statistical variables

Week 3 and 4: Data description

statistical tables and diagrams, histograms using Excel, Excel Analysis Toolpak

Week 5 and 6: Empirical distributions

Mean, median, modus, Variance, standard deviation, Standard error, Skewness and kurtosis, Computing statistics in Excel and in SPSS

Week 7 and 8: Parameter estimation

Normal distribution, Confidence interval by hand, using Excel functions, with Analysis Toolpak, in SPSS

Week 9 and 10: Hypothesis

H0 and H1, Z-test, T-test, Khi-test for normality testing, Testing the independence of two variables

Week 11 and 12: ANOVA

One-Way ANOVA, Two-Way ANOVA, ANOVA in Excel, One-Way ANOVA, PSS in SPSS, Two-Way ANOVA in SPSS, Between-Subjects Effects, Levene test, Tukey test

Interim course requirement(s): participation

Type of evaluation exam

Method of evaluation: written

Obligatory course materials

- Hector Guerrero: Excel Data Analysis, Modeling and Simulation. Springer International, 2019
- Keith McCormick, Jesus Salcedo, Jon Peck, Andrew Wheeler: SPSS Statistics for Data Analysis and Visualization. Wiley, 2017