

Unit of Study:	Statistics II			Subject code:	GVXST2ABNE				
Institute:	Institute of Enterprise Management (1084 Budapest, Tavaszmező str. 15-17.)			Credits:	4				
Course type:	Full-time		Language:	English		Term:			
Major:									
Lecturer-in-charge:	Viktor Nagy, Ph.D.		Lecturer(s):	Viktor Nagy, Ph.D.					
Prerequisites:	Statistics I								
No. of sessions per week/term:	Weekly	Lecture:	1	Seminar:	2	Lab:	0	Consultation:	0
Exam/Course assignment:	Midterm exam								
Course objectives:	Upon completion of this course, students should use the tools and formulas of inferential statistics.								
Course assessment:	Students are required to attend all classes. Should a student accumulate 5 absences (excused and/or unexcused) out of 14 in the semester class, he/she will not receive academic credits. Students are required to pass two tests. Students may get homework, which should be handed in until the next lesson or presented in some minutes in the lectures.								
Week (consultation)	Course content								
1.	Sampling: simple random, systematic, cluster, stratified and other sampling.								
2.	Representativeness. Biased sample, sampling errors. Sampling distributions. Central limit theorem. Standard errors.								
3.	Point estimate, interval estimate, confidence level, confidence interval, margin of error. Confidence intervals for the mean, proportion and variance.								

4.	Binomial, normal, t- and chi-square, F distributions.
5.	Hypothesis testing I. With one sample: for the mean, proportion and standard deviation With two samples: for differences between means and proportions.
6.	Hypothesis testing II. Chi-square tests: goodness-of-fit and test for independence. ANOVA.
7.	Test 1
8.	Covariance, correlation coefficients, correlation quotient, rank correlation.
9.	Bivariate linear correlation and linear/nonlinear regression analysis.
10.	Multivariate regression analysis.
11.	Time series analysis: moving averages. Time series models: trend, seasonality, cyclic behaviour, randomness.
12.	Interpolation and extrapolation.
13.	Test 2
14.	Makeup exams
Assessment (method of assessment, make-ups and re-sits):	Grade in this course is calculated numerically based on total points/percentages of the two tests although the instructor may raise or decrease it by one grade based on the active/inactive participation in classes or the level of the homework. 5 (excellent): 87 – 100 % 4 (good): 75 – 86 % 3 (satisfactory): 63 – 74 % 2 (pass): 51 – 62 % 1 (fail): 50 or less % Should a student accumulate a total of 50 or less percentages, an additional chance is given to him/her to meet the requirements.
Course completion (written or oral exam, test, etc.):	Written.
Compulsory literature:	Freedman, David – Pisani, Robert –Purves, Roger (2007): Statistics: W.W.Norton & Company Inc, (4th Edition)
Recommended literature:	Oakshott, Les (2016): Essential Quantitative Methods: For Business, Management and Finance. 6th Edition, Palgrave Oakshott, Les (2014): Quantitative methods. Palgrave Macmillan

	<p>Donnelly, Robert (2007): The Complete Idiot`s Guide to Statistics. 2nd Edition, Alpha Swift, Louise and Piff, Sally (2014): Quantitative Methods for Business, Management and Finance, Macmillan Education UK Rumsey, Deborah J. (2011): Statistics For Dummies. 2nd Edition, Wiley Rumsey, Deborah J. (2009): Statistics II for Dummies. Wiley, 2009</p>
Additional material:	
Quality management aspects:	TÜV CERT EN ISO 9001:2000