Content

Course Code	Course Name	Semester	Theory	Practice	Lab	Credit	ECTS
G563	Research Methodology	1	3	0	0	3	6

Prerequisites	
Admission Requirements	

Language of Instruction	Turkish
Course Type	Compulsory
Course Level	Masters Degree
Objective	This course aims to teach the fundamental concepts, principles and applications related with scintific research and methods used.
Content	1) Introduction, research project and steps of a research project, basics of sampling. 2) Statistical inference (Estimation of a mean and proportion) 3) Statistical inference (Estimation of a mean and proportion), determination of the sample size. 4) Hypothesis testing, hypothesis, determination of the significance level, type I and II errors, rules of decision. 5) Parametric hypothesis testing (Test of a mean or a proportion of a population). 6) Non-parametric hypothesis testing (Contingency tables, Test Chi-2 of independance, homogeneity and conformity). 7) Non-parametric hypothesis testing. (Test of Kolmogorov-Smirnov, Wilcoxon signed rank test, Mann-Whitney U test) 8) Regression analysis, scatter plots. Regression and correlation analysis and hypothesis. 9) Simple linear regression, computing coefficients using least squares method. Pearson's coefficient of correlation, tests of regression end correlation coefficients. 10) Multiple regression analysis. Part and partial correlation coefficients. 11) Non-parametric correlation. (Spearman's rank correlation, coefficient of Kendall-Tau).
References	Daniel Wayne W. & Terrell James C., Business Statistics, 5. edition, Houghton Miflin, USA. Newbold, Paul, Statistics for Business and Economics, Pearsons Education Newbold, Paul, İşletme ve İktisat için İstatistik, Çeviren Ümit Şenesen, Literatür Yayıncılık Orhunbilge, Prof. Dr. Neyran, Örnekleme Yöntemleri ve Hipotez Testleri, İ.Ü.İşletme Fak. Yayınları Avcıol Basım Yayın, 2. Baskı, İstanbul 2000. Orhunbilge, Prof. Dr. Neyran, Uygulamalı Regresyon ve Korelasyon Analizi, 2. B., İ.Ü.İşletme Fak. Yayınları, İ.Ü. Basım ve Yayınevi Md., İstanbul 2002

Theory Topics

Week	Weekly Contents