Content

Course Code	Course Name	Semester	Theory	Practice	Lab	Credit	ECTS
COM336	Application of Statistics for the Social Sciences	6	2	0	0	2	3

Prerequisites	
Admission Requirements	

Language of Instruction	Turkish
Course Type	Compulsory
Course Level	Bachelor Degree
Objective	Course objective is to give to the student the basic knowledge concerning the following subjects and to provide him using them when faced : • Descriptive statistics (representation of datas, charts, measures of central tendency and dispersion). • Probability and probability laws (law of sum and product of probabilities, conditional probability), theoretical probability distributions for discret and continuous random variables (binomial, Poisson, hypergeometric, Gaussian and Student (t) probability distributions). • Concept of sampling and sampling methods. • Statistical inference and estimation theory (estimation of a mean, a proportion, estimation by confidence interval). • Parametric hypothesis tests (test of a mean, a proportion, comparaison of means or proportions of two populations).
Content	1) Introduction to statistics, steps of a research project, organization of datas and data analysis. 2) Organization of datas and data analysis, frequency distribution. 3)Graphic representation of frequency distributions. 4) Descriptive measures of central tendancy and dispersion of distributions. 5) Concept and laws of probability. 6) Elementary laws of discrete variables. 7) Elementary laws of continuous variables. 8) Mid-term Exam. 9) Sampling and statistical inference (Estimation of a mean and proportion). 10) Parametric hypothesis testing. (Test of a mean or a proportion) 11) Non-parametric hypothesis testing. (Test Chi-2 of independence and homogeneity)
References	Calot, Gérard, Cours de Statistique Descriptive, Dunod, Paris Çakır, Filiz, Sosyal Bilimlerde İstatistik, Alfa Yayınları, 2000 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, Tanımsal İstatistik, Olasılık ve Olasılık Dağılımları, İ.Ü.İşletme Fak. Yayınları Avcıol Basım Yayın, İstanbul 2000 Orhunbilge, Prof. Dr. Neyran, Örnekleme Yöntemleri ve Hipotez Testleri, İ.Ü.İşletme Fak. Yayınları Avcıol Basım Yayın, 2. Baskı, İstanbul 2000

Theory Topics

Week	Weekly Contents
1	Introduction to statistics, steps of a research project, organization of datas and data analysis.
2	Organization of datas and data analysis, frequency distribution.
3	Graphic representation of frequency distributions.
4	Descriptive measures of central tendancy and dispersion of distributions.
5	Quiz. Descriptive measures of central tendancy and dispersion of distributions.
6	Concept and laws of probability.
7	Elementary laws of probability for discrete variables.
8	Elementary laws of probability for continuous variables.
9	Elementary laws of probability for continuous variables.
10	Mid-term Exam.
11	Sampling and statistical inference (Estimation of a mean and proportion).
12	Sampling and statistical inference (Estimation of a mean and proportion).
13	Parametric hypothesis testing. (Test of a mean or a proportion)
14	Non-parametric hypothesis testing. (Test Chi-2 of independence and homogeneity)