

TOROS ÜNİVERSİTESİ

Vocational School
Medical Imaging Techniques

Course Information

BIOSTATISTICS					
Code	Semester	Theoretical	Practice	National Credit	ECTS Credit
		Hour / Week			
TGT224	Spring	2	0	2	2

Prerequisites and co-requisites	
Language of instruction	Turkish
Type	Elective
Level of Course	Associate
Lecturer	
Mode of Delivery	Face to Face
Suggested Subject	
Professional practise (internship)	None
Objectives of the Course	At the end of this course the student; parametric and nonparametric tests, chi-square analyzes, correlation analysis and types, and univariate and multivariate regression analyzes, covariance analysis, and statistical analysis, as well as the use of statistical health services, central tendency measures and distribution prevalence measures and universe averages confidence bounds, distribution types, manoeuver analyzes, clustering and factor analysis, and their place of use, and will be able to perform these tests on the SPSS statistical package program.
Contents of the Course	At the end of this course the student; parametric and nonparametric tests, chi-square analyzes, correlation analysis and types, and univariate and multivariate regression analyzes, covariance analysis, and statistical analysis, as well as the use of statistical health services, central tendency measures and distribution prevalence measures and universe averages confidence bounds, distribution types, manoeuver analyzes, clustering and factor analysis, and their place of use, and will be able to perform these tests on the SPSS statistical package program.

Learning Outcomes of Course

#	Learning Outcomes
1	At the end of this course, the student will be able to develop the ability to use various statistical techniques in planning and evaluating health services.
2	
3	
4	
5	
6	

Course Syllabus

#	Subjects	Teaching Methods and Technics
1	Use of statistical health services	
2	Introduction of SPSS statistical package program for data analysis	
3	Provision of data quality, handling of null and outlier values, classification of data	
4	Central tendency and prevalence criteria, universe mean and ratio confidence limits	

5	Central tendency and prevalence criteria, universe mean and ratio confidence limits	
6	Theoretical distributions (binomial, poisson, normal distribution)	
7	Theoretical distributions (binomial, poisson, normal distribution)	
8	Midterm	
9	Hypothesis testing and assumptions	
10	Parametric hypothesis tests	
11	Nonparametric hypothesis tests	
12	Chi-square analysis	
13	Factor analysis, Clustering analysis,	
14	Covariance analysis (Ancova) and multivariate analysis of variance (Manova)	
15	General Exam Preparation	
16	Final Exam	

Course Syllabus

#	Material / Resources	Information About Resources	Reference / Recommended Resources
1	James E. Veney, John F. Kros and David A. Rosenthal. (2009). Statistics for Health Care Professionals: Working With Excel (Public Health/Epidemiology and Biostatistics). ? Stacey Beth Plichta and Laurel S. Garzon (2008). Statistics for Nursing and Allied Health. ? Alpar R. (2011). Uygulamalı Çok Değişkenli İstatistiksel Yöntemler. Detay yayıncılık. ? Nakip M. (2003). Pazarlama Araştırmaları: Teknikler ve SPSS Destekli Uygulamalar. Seçkin Yayıncılık. ? Alpar R. (1997). Uygulamalı Çok Değişkenli İstatistiksel Yöntemlere Giriş-1. Spor Kitabevi. ? Sümbüloğlu K. (1990). Sağlık Alanına Özel İstatistiksel Yöntemler. Hatiboğlu Yayıncılık. RELATED ARTICLES AND TEXTBOOKS		

Method of Assessment

#	Weight	Work Type	Work Title
1	40%	Mid-Term Exam	Mid-Term Exam
2	60%	Final Exam	Final Exam

Relationship between Learning Outcomes of Course and Program Outcomes

#	Learning Outcomes	Program Outcomes	Method of Assessment
1	At the end of this course, the student will be able to develop the ability to use various statistical techniques in planning and evaluating health services.	10,11,12	1,2
2			
3			
4			
5			
6			

PS. The numbers, which are shown in the column Method of Assessment, presents the methods shown in the previous table, titled as Method of Assessment.

Work Load Details

#	Type of Work	Quantity	Time (Hour)	Work Load
1	Course Duration	14	2	28
2	Course Duration Except Class (Preliminary Study, Enhancement)	14	2	28
3	Presentation and Seminar Preparation	0	0	0

4	Web Research, Library and Archival Work	0	0	0
5	Document/Information Listing	0	0	0
6	Workshop	0	0	0
7	Preparation for Midterm Exam	0	0	0
8	Midterm Exam	1	1	1
9	Quiz	0	0	0
10	Homework	0	0	0
11	Midterm Project	0	0	0
12	Midterm Exercise	0	0	0
13	Final Project	0	0	0
14	Final Exercise	0	0	0
15	Preparation for Final Exam	1	2	2
16	Final Exam	1	1	1
				60