

Graduate School of Health Sciences / Cardiovascular Perfusion M.S

2023 - 2024 Academic Year

BIostatISTICS

Syllabus

Course Description					
Name	Code	Semester	T+A Hour	Credit	ECTS
BIostatISTICS	PRFY1110438	Fall Semester	3+0	3	8
Prerequisites Courses					
Recommended Elective Courses					
Language of Instruction	Turkish				
Course Level	Second Cycle (Master's Degree)				
Course Type	Elective				
Course Coordinator	Prof.Dr. Abdulbari BENER				
Name of Lecturer(s)	Prof.Dr. Abdulbari BENER				
Assistant(s)	Res. Ass. Furkan Büyükkal				
Aim	To provide the knowledge and practice of research methods and statistics necessary for organizing and concluding research with scientific methods.				
Course Content	This course contains; Scientific method, data, scales, Variables, blinding, errors insurveys, Types of research, research planning, sampling, Observation method, survey method, clinical trials, The use of research methods in epidemiology, research ethics, Literature review, preparation of data for analysis, The table and graph-making, footnotes and references, General concepts and techniques of statistics, measurements, frequency distributions, averages, Probability, Basics of hypothesis testing, confidence intervals basics, Comparison of averages, Correlation and regression, multiple linear regression, Categorical variables, comparison of two proportions, Crosstabs, stratified tables..				
Course Learning Outcomes			Teaching Methods	Assessment Methods	
Summarizes clinical research, relationships among variables, blinding, mistakes in research, research and science ethics			10, 12, 13, 14, 16, 4, 6, 8, 9	E	
Establishes the relationship between scientific research and biostatistical methods			10, 12, 13, 14, 16, 4, 6, 9	E	
define descriptive and analytical statistical methods and analyze them			10, 12, 13, 14, 16, 4, 5, 6, 8, 9	E	
Gains the practice of planning a scientific research, scanning sources, preparing data for analysis, making tables and graphs, citing footnotes and references.			10, 12, 13, 14, 16, 4, 6, 8, 9	E	
Analyze the relationship of descriptive and analytical statistical methods to scientific research			10, 13, 14, 16, 4, 5, 6, 8, 9	E	
Teaching Methods	10: Discussion Method, 12: Problem Solving Method, 13: Case Study Method, 14: Self Study Method, 16: Question - Answer Technique, 4: Inquiry-Based Learning, 5: Cooperative Learning, 6: Experiential Learning, 8: Flipped Classroom Learning, 9: Lecture Method				
Assessment Methods	E: Homework				
Lecture Schedule					
Sequence	Topics	Preliminary Preparation			
1	Scientific method, data, scales.	Downloading and working with the relevant ppt file -Mebis notes			
2	Variables, blinding, errors insurveys.	Downloading and working with the relevant ppt file-Mebis notes			
3	Types of research, research planning, sampling.	Downloading and working with the relevant ppt file-Mebis notes			
4	Observation method, survey method, clinical trials.	Downloading and working with the relevant ppt file-Mebis notes			
5	The use of research methods in epidemiology, research ethics.	Downloading and working with the relevant ppt file-Mebis notes			
6	Literature review, preparation of data for analysis.	Downloading and working with the relevant ppt file-Mebis notes			
7	The table and graph-making, footnotes and references.	Downloading and working with the relevant ppt file-Mebis notes			
8	General concepts and techniques of statistics, measurements, frequency distributions, averages.	Downloading and working with the relevant ppt file-Mebis notes			
9	Probability.	Downloading and working with the relevant ppt file-Mebis notes			
10	Basics of hypothesis testing, confidence intervals basics.	Downloading and working with the relevant ppt file-Mebis notes			
11	Comparison of averages.	Downloading and working with the relevant ppt file-Mebis notes			
12	Correlation and regression, multiple linear regression.	Downloading and working with the relevant ppt file-Mebis notes			
13	Categorical variables, comparison of two proportions.	Downloading and working with the relevant ppt file-Mebis notes			
14	Crosstabs, stratified tables.	Downloading and working with the relevant ppt file-Mebis notes			
Evaluation Methods		Weight(%)			
Midterm Exam		50			
General Exam		50			

Resources
Biostatistics "mebis notes" will be given to the students. 1) Biostatistik, Prof.Dr.Kadir Sümbüloğlu, Doç.Dr.Vildan Sümbüloğlu. 2) Sağlık Bilimlerinde araştırma yöntemleri Vildan Sümbüloğlu, Kadir Sümbüloğlu. 3) Bilgisayar (Excel) destekli uygulamalı istatistik Prof.Dr. Mustafa Akkurt. 4) Bilgisayar istatistik ve tıp Dr. Murat Hayran, Dr. Oktay Özdemir. 5) SPSS ile biyoistatistik Kazım Özdamar. 6) Tıbbi araştırmalarda istatistiksel analiz teknikleri "SPSS uygulamaları" Aziz Akgül. 7) Sağlık Araştırmalarında Örneklem Büyüklüğünün Yeterliliği. Stanley Lemeshow, David W. Hosmer Jr, Janelle Klar, Stephen K. Lwanga, Çeviren S. Oğuz Kayaalp, Hacettepe Taş, 2000.