

School of Health Sciences / Nursing
2023 - 2024 Academic Year
BIOSTATISTICS
Syllabus

Course Description					
Name	Code	Semester	T+A Hour	Credit	ECTS
BIOSTATISTICS	HEM2210100	Spring Semester	2+0	2	2
Prerequisites Courses					
Recommended Elective Courses					
Language of Instruction	Turkish				
Course Level	First Cycle (Bachelor's Degree)				
Course Type	Required				
Course Coordinator	Assist.Prof. Pakize YİĞİT				
Name of Lecturer(s)	Assist.Prof. Olcay ÖZEN				
Assistant(s)	Res. Asst. Yuşa Baçoğlu				
Aim	To give basic information of biostatistical methodology and to provide the basis for the upcoming research methods courses.				
Course Content	This course contains; Definition of Statistics - Major Stages of Statistical Methodology - Statistics in Medicine and Health Sciences,Data collection and organization – Summarizing ,Descriptive statistics: Measures of central tendency: Averages – Analytical averages,Averages (cont'd.): Non-analytical averages,Descriptive statistics (cont'd.): Variation – Measures of Variation – Skewness – Measures of skewness,Descriptive statistics practical,The normal distribution and properties of the normal distribution – The standard normal distribution,The normal distribution and properties of the normal distribution – The standard normal distribution,Introduction to inferential statistics: Sampling and sampling techniques: Simple random sampling: Estimation of the population parameters,Simple random sampling (cont'd.): Estimation of the population mean,Simple random sampling (cont'd.): Estimation of the population mean,Correlation-Spearman and Pearson Correlation,Research Stages , Ethics in Research .				
Course Learning Outcomes			Teaching Methods	Assessment Methods	
1. Interpret descriptive statistics			16, 6, 9	A	
2. Interpret tables and graphs			12, 6, 9	A	
3. Sorts the data of the variable and variables			16, 9	A	
4. Interprets normal distribution data			10, 6, 9	A	
5. Writes hypotheses			16, 6, 9	A	
6. Calculates the sample size			16, 9	A	
7. Explains the basic concepts about Statistical Association Analysis.			6, 9	A	
8. Explains Normal Distribution and its Properties			16, 9	A	
Teaching Methods	10: Discussion Method, 12: Problem Solving Method, 16: Question - Answer Technique, 6: Experiential Learning, 9: Lecture Method				
Assessment Methods	A: Traditional Written Exam				
Lecture Schedule					
Sequence	Topics	Preliminary Preparation			
1	Definition of Statistics - Major Stages of Statistical Methodology - Statistics in Medicine and Health Sciences	Source 1 Page 6			
2	Data collection and organization – Summarizing	Source 1 Pages 7-10			
3	Descriptive statistics: Measures of central tendency: Averages – Analytical averages	Source 1 Pages 10-27			
4	Averages (cont'd.): Non-analytical averages	Source 1 Pages 10-27			
5	Descriptive statistics (cont'd.): Variation – Measures of Variation – Skewness – Measures of skewness	Source 1 Pages 10-27			
6	Descriptive statistics practical	Source 1 Pages 10-27			
7	The normal distribution and properties of the normal distribution – The standard normal distribution	Source 2 Pages 107-124			
8	The normal distribution and properties of the normal distribution – The standard normal distribution	Source 2 Pages 107-124			
9	Introduction to inferential statistics: Sampling and sampling techniques: Simple random sampling: Estimation of the population parameters	Source 2 Pages 107-124			
10	Simple random sampling (cont'd.): Estimation of the population mean	Source 2 Pages 107-124			
11	Simple random sampling (cont'd.): Estimation of the population mean	Source 2 Pages 107-124			
12	Correlation-Spearman and Pearson Correlation	Source 2 Pages 107-124			
13	Research Stages	Course Notes			
14	Ethics in Research	Course Notes			
Evaluation Methods		Weight(%)			
Midterm Exam		40			
General Exam		60			

Resources
Mebis notes1- Sümbüloğlu, K., Sümbüloğlu, V. (2012). Biyoistatistik, İstanbul: Hatipoğlu Yayınları. 2- M.Şenocak, M. (2014). Biyoistatistik ve Araştırma Yöntemleri, İstanbul: Çağlayan Kitabevi 3- Prof. Dr. Osman Hayran, Prof. Dr. Hanefi Özbek (2017), "Sağlık Bilimlerinde Araştırma ve İstatistik Yöntemler (SPSS Uygulama Örnekleri ile Genişletilmiş 2. Baskı)"