

Course Title	Code	Semester	Theoretical (hours/week)	Practice (hours/week)	Laboratory (hours/week)	ECTS
<b>BIOSTATISTICS</b>	<b>BIS601</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>5</b>
<b>Prerequisites</b>	-					
<b>Course Language</b>	Turkish					
<b>Course Type</b>	Compulsory					
<b>Teaching Methods</b>	Lecture, Question & Answer, Practice					
<b>Instructor(s)</b>						
<b>Course Objective</b>	To emphasize the role of biostatistics methods and principles on health sciences; to teach basic concepts of biostatistics; to give sufficiently biostatistics knowledge in planning, executing, evaluating results and interpreting stages of a research					
<b>Course Learning Outcomes</b>	<p>At the end of this course, the students are;</p> <ol style="list-style-type: none"> <li>1. able to express the basic concepts of biostatistics,</li> <li>2. able to calculate descriptive statistics,</li> <li>3. able to determine the appropriate type of tables and graphs,</li> <li>4. able to perform the application of theoretical distributions,</li> <li>5. able to define the concept and methods of sampling,</li> <li>6. able to determine the appropriate hypothesis test.</li> </ol>					
<b>References</b>	<ol style="list-style-type: none"> <li>1. Smbloęlu Kadir ve Smbloęlu Vildan. <b>Biyoistatistik</b>. 16. bs., Ankara, Hatiboęlu Yayınevi, 2014.</li> <li>2. Akdaę Beyza ve Smbloęlu Kadir. <b>nemlilik Testleri</b>, 2010, Hatiboęlu Basım ve Yayım San. Tic. Ltd. řti.</li> <li>3. zdamar Kazım. <b>SPSS ile Biyoistatistik</b>. Geniřletilmiş Beřinci Baskı, 2003, Kaan Kitapevi.</li> <li>4. Alpar Reha. <b>Spor, Saęlık ve Eęitim Bilimlerinden rneklerle, Uygulamalı İstatistik ve Geęerlik-Gvenirlik</b>, 2010, Detay Yayıncılık.</li> <li>5. elik Yusuf. <b>Nasıl? Biyoistatistik, Bilimsel Arařtırma, SPSS</b>, 2011.</li> <li>5. Diři Rian. <b>Temel ve Klinik Biyoistatistik</b>, Yenilenmiř 2. Baskı, 2011, İstanbul Tıp Kitabevi.</li> <li>6. Daniel W.W. <b>Biostatistics A foundation for Analysis in The Health Sciences</b>. 2005, John Wiley and Sons, USA.</li> <li>7. Schork M.A., Remigton R.D. <b>Statistics with Applications to the Biological and Health Sciences</b>. 2000, Prentice Hall, New Jersey, USA.</li> <li>8. Dawson B., Trapp R.G., <b>Basic&amp;Clinical Biostatistics</b>, 2004, McGraw-Hill Companies Inc. Newyork, USA.</li> </ol>					

## WEEKLY COURSE TOPICS

Weeks	DISCUSSION TOPICS TO BE PROCESSED
1.	Health Care Services and Biostatistics
2.	Frequency Distributions, Descriptive Statistics
3.	Table and Graph Method
4.	Theoretical Distributions
5.	Sampling
6.	Principles of Significance Tests
7.	Independent Samples Tests
8.	<b>Mid-Term Examination</b>
9.	Paired Samples Test
10.	Analysis of Variance
11.	Two Proportions Test, One Sample Tests
12.	Chi-Square Tests
13.	Nonparametric Tests
14.	Correlation and Regression Analysis
15.	<b>Final Exam</b>

**ECTS / WORK LOAD TABLE**

<b>Activities</b>	<b>Number</b>	<b>Duration</b>	<b>Total Work Load</b>
Course	14	3	42
Laboratory			
Practice			
Field Study			
Outclass course work hours ( Self working / Teamwork / Preliminary work)	14	4	56
Presentations (Video preparation / Poster preparation / Oral presentation / Focus group discussion / Applying questionnaire/ Observation and report writing)			
Seminars			
Project			
Case study			
Role playing, dramatization			
Preparing and criticizing article			
Semester midterm exams	2	10	20
Semester final exams	1	7	7
<b>Total Work Load ( hour) / 25(s)</b>	<b>125/25</b>		
<b>ECTS</b>	<b>5</b>		

## EVALUATION SYSTEM

<b>Midterm Studies</b>	<b>Number</b>	<b>Contribution</b>
Midterm exam	1	%25
Quiz		
Laboratory		
Practice		
Field Study		
Specific practical training (If exists)		
Homework assignment	1	%25
Presentation and seminar		
Projects		
Other evaluation methods		
<b>Total of Midterm Studies</b>		%50
<b>Final Studies</b>		
Final	1	%50
Homework assignment		
Practice		
Laboratory		
<b>Total of Final Studies</b>		%50
Contribution of midterm studies to course grade		%50
Contribution of final studies to course grade		%50
<b>Total Grade</b>		100

# **RELATIONSHIPS BETWEEN COURSE LEARNING OUTCOMES AND PROGRAM QUALIFICATIONS**

Program Qualifications		Learning Outcomes					
		LO1	LO2	LO3	LO4	LO5	LO6
1.	Based on his/her previous qualifications, develops and deepens the current and advanced information, methods and practices in the field at the level of expertise with original thought and/or research.	5	4	3	3	3	4
2.	Develops new ideas and methods related to the field by using higher-order mental processes such as creative and critical thinking, problem solving and decision making.	5	3	3	3	2	4
3.	Understands the interdisciplinary interaction of the field; reaches original results by using knowledge and research methods that require expertise in analysis, synthesis and evaluation of new and complex ideas.	5	3	3	3	3	3
4.	Has knowledge about the statistical methods used in the field of health; accurately selects, applies and interprets statistical methods.	5	5	4	4	3	5
5.	Makes necessary examination by using the technological tools including the computer, the field-specific equipment and tools at the level required by the field of health, and develops creative solutions to problems.	4	4	4	4	3	4
6.	Extends the boundaries of knowledge in the field by publishing at least one scientific paper related to the field in national and / or international peer-reviewed journals.	4	2	2	2	2	2
7.	Reviews and assesses a scientific article / research in a critical point of view.	4	3	3	3	2	3
8.	Takes part in environments that require the resolution of the problems related to the field and other disciplines, and takes the lead when necessary.	3					
9.	Defends his/her original opinions in discussing the subjects related to field and communicates effectively which shows his/her competence in the field.	4	1	1	1	1	1
10.	Promotes scientific, technological, social or cultural advancements in the field of health, contributes to the process of becoming and maintaining the society of knowledge of the society in which he/she lives.	3					
11.	Contributes to the solution of social, scientific, cultural and ethical problems encountered in health related issues and supports the development of these values.	2					

<b>12.</b>	Uses current developments and information about the field of health for the benefit of the community in accordance with the child, family, national values and the facts of the country.	<b>3</b>					
<b>13.</b>	Knows the importance of ethical principles and ethical rules for the individual and society, acts in accordance with scientific accuracy and ethical principles.	<b>2</b>					
<b>14.</b>	Examines and develops the social relations and the norms that direct these relations, from a critical point of view and manages actions for changing them when necessary.	<b>1</b>					
<b>15.</b>	Communicates written, orally and visually by using a foreign language at advanced level and discusses in that language.	<b>4</b>					

**Contribution to the level of proficiency: 1: Low 2: Low/Moderate 3: Moderate 4: High 5: Excellent**