

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. Sümbüloğlu Kadir ve Sümbüloğlu Vildan. <b>Biyoistatistik</b>. 16. bs., Ankara, Hatiboğlu Yayınevi, 2014.</li> <li>2. Akdağ Beyza ve Sümbüloğlu Kadir. <b>Önemlilik Testleri</b>, 2010, Hatiboğlu Basım ve Yayım San. Tic. Ltd. Şti.</li> <li>3. Özdamar Kazım. <b>SPSS ile Biyoistatistik</b>. Genişletilmiş Beşinci Baskı, 2003, Kaan Kitapevi.</li> <li>4. Alpar Reha. <b>Spor, Sağlık ve Eğitim Bilimlerinden Örneklerle, Uygulamalı İstatistik ve Geçerlik-Güvenirlilik</b>, 2010, Detay Yayıncılık.</li> <li>5. Çelik Yusuf. <b>Nasıl? Biyoistatistik, Bilimsel Araştırma, SPSS</b>, 2011.</li> <li>5. Dişçi Rian. <b>Temel ve Klinik Biyoistatistik</b>, Yenilenmiş 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

<b>Weeks</b>	<b>DISCUSSION TOPICS TO BE PROCESSED</b>
<b>1.</b>	Health Care Services and Biostatistics
<b>2.</b>	Frequency Distributions, Descriptive Statistics
<b>3.</b>	Table and Graph Method
<b>4.</b>	Theoretical Distributions
<b>5.</b>	Sampling
<b>6.</b>	Principles of Significance Tests
<b>7.</b>	Independent Samples Tests
<b>8.</b>	<b>Mid-Term Examination</b>
<b>9.</b>	Paired Samples Test
<b>10.</b>	Analysis of Variance
<b>11.</b>	Two Proportions Test, One Sample Tests
<b>12.</b>	Chi-Square Tests
<b>13.</b>	Nonparametric Tests
<b>14.</b>	Correlation and Regression Analysis
<b>15.</b>	<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>		<b>%50</b>
<b>Final Studies</b>		
Final	1	%50
Homework assignment		
Practice		
Laboratory		
<b>Total of Final Studies</b>		<b>%50</b>
Contribution of midterm studies to course grade		%50
Contribution of final studies to course grade		%50
<b>Total Grade</b>		<b>100</b>

**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					

12.	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.	3					
13.	Knows the importance of ethical principles and ethical rules for the individual and society, acts in accordance with scientific accuracy and ethical principles.	2					
14.	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.	1					
15.	Communicates written, orally and visually by using a foreign language at advanced level and discusses in that language.	4					

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