BIOSTATISTICS

Course Name	Code	Term	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	ECTS
BIOSTATISTICS	BDB409	7. semester/ Autumn	2	0	0	2
Prerequisites	None					
Language of Instruction	Turkish					
Course Type	Compulsory					
Learning and Teaching Techniques of The Course	Expression, Discussion					
Instructor(s)	Prof. Dr. Vildan SÜMBÜLOĞLU					
Goal	Basic statistical concepts and methods, trying to understand students with examples and practices specific to the field of nutrition and dietetics					
Learning Outcomes	1. Understand the necessity of biostatistics science 2. To select a topic for a scientific study, to do literature review, to draw a hypothesis, to be able to define the proper working order and research universe, to calculate the appropriate sampling method 3. To be able to distinguish the scale concept from the questionnaire and learn the rules of preparing the questionnaire 4. Identify dependent and independent variables 5. Decide on normality of data 6. Be able to select appropriate graphs of variables according to their type, to be able to determine appropriate graphs according to distribution of numerical variables 7. Explain the concepts of parametric and non-parametric 8. Be able to make appropriate analyzes on normal and homogeneous and non-distributive variables 9. Be able to interpret differences between groups 10. To be able to compare repeated measures for numerical variables 11. To be able to interpret the relationship between dependent variables and independent variables 12. To prepare research report 13. Be able to interpret the percentage, mean, standard deviation, median, cartil values in a study 14. To be able to make biostatistical critique of published articles					
References	1. Anon.Kodeks Alimentaryus Komisyonu, www.codexalimentarius.net 2. Anon.Gıda ve Tarım ve Hayvancılık Bakanlığı,Türk Gıda Kodeksi http://www.gkgm.gov.tr/mevzuat/kodeks/kodeks_liste.html 3. Preedy VR., Watson RR. Reviews In Food and Nutrition Toxicity (Edited by) Volume 3, CRC press. (2005). 4. Omaye ST. Food and Nutritional Toxicology (Edited by), CRC press. (2004). 5. Lu FC.,Kacew S. Lu's Basic Toxicology , Fundamentals, Target Organs and Risk Assessment, (Edited by), Fifth Edition,CRC press. (2009) 6. Vries J..Food Safety and Toxicity, (Edited by), CRC press. (1996) 7. Branen AL., Davidson PM., Salminen S., Thorngate III JH. Food Additives (Edited by), Second Edition, CRC press. (2001).					

Course Outline Weekly:

WEEKS	TOPİCS
1. Week	Introduction to biostatistics science
2. Week	Scientific research and planning in medical sciences
3. Week	Descriptive statistics
4. Week	Working patterns
5. Week	Sampling methods,
6. Week	Probability and probability distributions
7. Week	Parameter estimates
8. Week	**MIDTERM EXAM**
9. Week	Introduction to hypothesis tests, parametric tests, nonparametric tests
10. Week	Categorical data analysis, correlation analysis
11. Week	Linear regression analysis
12. Week	Assessment of diagnostic tests
13. Week	Displaying data with tables and graphs
14. Week	Reporting of researches
15. Week	Special statistical methods for health field

Student Work Load Table

Activities	Number	Duration	Total Work Load
Course Duration	14	2	28
Laboratory			
Practice			
Field Study			
Study Time Of Outside Of Class (Pre-Study, Practice, Etc.)	14	1	14
Presentations (Video shoot/Poster preparation/Oral presentation, Etc.)			
Seminars			
Project			
Case study			
Role playing, Dramatization			
Writing articles, Critique			
Time To Prepare For Midterm Exam	1	3	3
Final Exam Preparation Time	1	5	5
Total Work Load (hour) / 25(s)	50 / 25		
ECTS	**2**		

Evaluation System

Mid-Term Studies	Number	Contribution
Midterm exams	1	100%
Quiz		
Laboratory		
Practice		
Field Study		
Course Internship (If There Is)		
Homework's		
Presentation and Seminar		
Project		
Other evaluation methods		
Total Time To Activities For Midterm		100
Final works		
Final	1	100%
Homework		
Practice		
Laboratory		
Total Time To Activities For Midterm		100
Contribution Of Midterm Studies On Grades		50%
Contribution Of Final Exam On Grades		50%
Total		100

The relationship between learning outcomes and the program qualifications of the courses

Program Qualifications	Learning outcomes													
	L.O.1	L.O.2	L.O.3	L.O.4	L.O.5	L.O.6	L.O.7	L.O.8	L.O.9	L.O.10	L.O.11	L.O.12	L.O.13	L.O.14
1. To acquire information in the basic and social sciences as the Dietitian as he profession entails and make use of it for life.	4	4	4	4	4	4	4	4	4	4	4	4	4	4
2. To develop personalized diet and programme in accordance with the principles of adequate and balanced nutrition.														
3. To improve and develop the food and nutrition plans and policy for the development of individuals with the energy and nutrient element requirements with scientific method detection, health protection														
4. To determine and evaluate individual, the community and the patient's nutritional status by applying up-to-date information gained in the field of nutrition and dietetics. She/he can use the knowledge to raise the level of community health and the quality of life.														
5. Assess the nutritional status of the patients, evaluate the clinical symptoms, plan and apply individualized medical nutrition therapy for the patients.														
6. The student can understand the basic values and culture of the society he/she is living in and gain the skill to transform him/herself in a positive way														
7. Dietitian can improve products, make laboratory practice on elements affecting analysis and quality of nutrition, review and evaluate them regarding the legal regulations	3	3	3	3	3	3	3	3	3	3	3	3	3	3
8. The student embraces the concepts with regard to biological systems that form the basis of human health, Anatomy, Physiology, and the sustainability of them.														
9. The student can participate in Nutrition and Dietetics practices individually and/or within a team, use, apply, discuss and share scientific and evidence based knowledge in nutrition and dietetics practice with team and team members, develop and demonstrate effective skills using oral, print, visual methods in communicating and expressing thoughts and ideas, communicate with all stakeholders within ethical principles. Develop and demonstrate effective communications skills using oral, print, visual, electronic and mass media methods	4	4	4	4	4	4	4	4	4	4	4	4	4	4
10. Dietitian has knowledge to develop food and nutrition plans and policies for protection of health, in order to improvement and development by using methods for determining the nutritional status.	4	4	4	4	4	4	4	4	4	4	4	4	4	4

Contribution to the level of proficiency: 1. Lowest, 2. Low / Medium, 3. Average, 4. High, 5. Excellent