

AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title	Biostatistics						
Course Code	BIS590	Couse Leve	vel Second Cycle (Master's Degree)				
ECTS Credit 4	Workload 100 (Hours)	Theory	2	Practice	2	Laboratory	0
Objectives of the Course	To teach basic statistical co the field of health, to make t	ncepts and i them unders	nd methods to students with specific examples and applications i lerstand and evaluate the literature in their field statistically.			itions in	
Course Content	 Basic statistical concepts, Collection of data, Descriptive statistics, Tables and graphics, Possibility, Introduction to analytical a Student's t tests Mann-Whitney U & Wilcox Chi square independence One way ANOVA, Kruskal Wallis Test 	nalysis, on T test analysis,					
Work Placement	N/A						
Planned Learning Activities	s and Teaching Methods	Explanation	n (Present	ation), Demons	tration, Prob	lem Solving	
Name of Lecturer(s)	Prof. İmran KURT ÖMÜRLÜ	j					

Assessment Methods and Criteria							
Method			Quantity	Percentage (%)			
Midterm Examination			1	40			
Final Examination			1	60			

Recommended or Required Reading

1	Özdamar, K. (2013). SPSS ile Biyoistatistik. Nisan Kitabevi, Eskişehir.
2	Alpar R. (2014). Spor, Sağlık ve Eğitim Bilimlerinden Örneklerle UYGULAMALI İSTATİSTİK ve GEÇERLİK-GÜVENİRLİK. Detay Yayıncılık, Ankara.
3	Daniel Wayne W. and Chad L. Cross. (2013). Biostatistics: A Foundation for Analysis in the Health Sciences. 10th Edition, New York: John Wiley&Sons.
4	Rosner, B. (2015). Fundamentals of biostatistics. Nelson Education.

Week	Weekly Detailed Cours	se Contents				
1	Theoretical	Basic statistical concepts; statistics, biostatistics, usage areas of biostatistics, population, sample, statistics, parameters, data, variables, types of scale, etc.				
	Practice	Introduction to statistical package programs				
2 Theoretical Classification of data, frequency table creation, etc.						
	Practice	Classification of data, frequency table creation, etc.				
3	Theoretical	Data collection methods, surveys, etc.				
	Practice	Data entry application				
4	Theoretical	Central tendency and distribution measures; mean, mod, median, standard deviation, variance, standard error, etc.				
	Practice	Calculation of central tendency and distribution measures.				
5	Theoretical	Tables and graphics; table types, chart types, etc.				
	Practice	Creating tables, drawing graphics, etc.				
6	Theoretical	Probability calculations.				
	Practice	Probability calculations.				
7	Theoretical	Introduction to analytical analysis, hypotheses, type 1 and type 2 errors, etc.				
	Practice	Probability calculation from frequency and cross tables				
8	Intermediate Exam	Midterm				
9	Theoretical	Student's t tests; one sample t test, independent samples t test, paired samples t test.				
	Practice	One sample t test, independent samples t test, paired samples t test.				
10	Theoretical	Student's t tests; one sample t test, independent samples t test, paired samples t test.				



10	Practice	Student's t tests; one sample t test, independent samples t test, paired samples t test.			
11	Theoretical	Mann-Whitney U test, Wilcoxon T test.			
	Practice	Mann-Whitney U test, Wilcoxon T test.			
12	Theoretical	Chi-square independence analysis; Pearson chi-square, Yates chi-square, Fisher's exact chi-square tests.			
	Practice	Pearson chi-square, Yates chi-square, Fisher's exact chi-square tests.			
13	Theoretical	One Way ANOVA			
	Practice	One Way ANOVA			
14	Theoretical	Kruskal Wallis test			
	Practice	Kruskal Wallis test			
15	Theoretical	Literature review and discussion			
	Practice	Literature review and discussion			
16	Final Exam	Final exam			

Workload Calculation

Activity		Quantity	Р	reparatio	on	Duration	Total Workload
Lecture - Theory		14		1		2	42
Lecture - Practice		14		1		2	42
Midterm Examination		1		5		1	6
Final Examination		1		8		2	10
					То	tal Workload (Hours)	100
[Total Workload (Hours) / 25*] = ECTS					4		
*25 hour workload is accepted as 1 ECTS							

Learning Outcomes

1	Decides the appropriate basic statistical analysis,
2	Makes calculations and analyzes on its own,
3	Interpret the results,
4	Comprehends the statistical analysis in the literature in his field,
5	Have sufficient theoretical and practical basis for more advanced statistics courses.

Programme Outcomes (Biostatistics Master)

-					
1	To be able to understand the interdisciplinary interaction releated with biostatistics.				
2	to be able to use Theoretical and practical knowledge at the level of expertise.				
3	To be able to nterpret the information by integrating information from different disciplines and create new information				
4	To be able to nalyze the problems encountered by using research methods				
5	to be able to conduct a study as an independent specialist				
6	To be able to formulate solutions for complex unpredictable problems encountered by developing new approaches and taking responsibility.				
7	To be able to resolve problems in environments that require leadership.				
8	To be able to evaluate and direct knowledge and skills with a critical approach at the level of expertise.				
9	To be able to to give statistical advise at the begining stages of preparing health related projects				
10	To be able to get the knowledge and the ability of using statistical packages				

Contribution of Learning Outcomes to Programme Outcomes 1: Very Low, 2: Low, 3: Medium, 4: High, 5: Very High

	L1	L2	L3	L4	L5
P1	4	4	4	4	4
P2	4	3	3	3	3
P3	4	3	4	4	4
P4	5	4	4	5	4
P5	5	5	3	4	5
P6	3	5	5	4	4
P7	4	5	4	5	4
P8	3	3	3	5	3
P9	3	2	2	4	4



O	Loof - was - C - was	/ - · · · · · ·
(:OURSE		Form
000100		1 01111

P10 4	4 4	3	4	5
-------	-----	---	---	---

