AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Biostatistics							
Course Code	BİS590		Couse Level		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 concepts and methods to students with specific examples and applications in the field of health, to make them understand and evaluate the literature in their field statistically.							
Course Content	- Basic statistical concepts, - Collection of data, - Descriptive statistics, - Tables and graphics, - Possibility, - Introduction to analytical analysis, - Student's t tests - Mann-Whitney U & Wilcoxon T test - Chi square independence analysis, - One way ANOVA, - Kruskal Wallis Test							
Work Placement	N/A							
Planned Learning Activities and Teaching Methods			Explanation (Presentation), Demonstration, Problem Solving					
Name of Lecturer(s)	Prof. İmran KURT ÖMÜRLÜ							

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 Course 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	Preparation	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
			Total 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 *(Medical Nursing Master)*

1	Utilize/apply the concepts, theories and principles of nursing science
2	Demonstrate advance competence in practice of nursing
3	Practice as a nurse specialist.
4	Demonstrate leadership qualities and function effectively as nurse educator and manager.
5	Demonstrate skill in conducting nursing research, interpreting and utilizing the findings from health related research.
6	Establish collaborative relationship with members of other disciplines
7	Demonstrate interest in continued learning for personal and professional advancement.

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	2	2	2	2	2
P2	3	3	3	3	3
P3	3	3	3	3	3
P4	4	4	4	4	4
P5	5	5	5	5	5
P6	2	2	2	2	2
P7	3	3	3	3	3