AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Categorical Data Analysis								
Course Code	BİS531		Couse Level	Second Cycle (Master's Degree)					
ECTS Credit	6	Workload	152 *(Hours)*	Theory	3	Practice	0	Laboratory	0
Objectives of the Course	The course acquaints with the ways of the analysis of categorical data obtained by vaious studies. It focuses on one-way and two-way analyses and provides bases of multivariate analysis.								
Course Content	Parameter estimate methods, theory and applications for categorical data analysis. Chi-Square, categorical regression, correspondence and homogeneity, principal component analysis for categorical variables, canonical correlation analysis for categorical variables, log-linear models.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Project Based Study, Individual Study								
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	Greenacre, M. (2017). Correspondence analysis in practice. Chapman and Hall/CRC.
2	Agresti, A., & Kateri, M. (2011). Categorical data analysis. Springer Berlin Heidelberg.
3	Lawal, B., & Lawal, H. B. (2003). Categorical data analysis with SAS and SPSS applications. Psychology Press.
4	Andersen, E. B. (2012). The statistical analysis of categorical data. Springer Science & Business Media.

Week	Weekly Detailed Course Contents	
1	Theoretical	Methods of parameter estimation-1
2	Theoretical	Methods of parameter estimation-2
3	Theoretical	Chi-square Analysis
4	Theoretical	Correspondence analysis
5	Theoretical	Multiple Correspondence Analysis-1
6	Theoretical	Multiple Correspondence Analysis-2
7	Theoretical	Homogeneity Analysis-1
8	Intermediate Exam	Midterm exam
9	Theoretical	Homogeneity Analysis-2
10	Theoretical	Principal Component Analysis for Categorical Data-1
11	Theoretical	Principal Component Analysis for Categorical Data-2
12	Theoretical	Canonical Correlation Analysis for Categorical Data-1
13	Theoretical	Canonical Correlation Analysis for Categorical Data-2
14	Theoretical	Log-linear Models
15	Theoretical	Literature review and discussion
16	Final Exam	Final exam

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	3	42
Assignment	1	10	0	10
Individual Work	7	0	2	14
Quiz	14	2	1	42
Midterm Examination	1	20	2	22

Final Examination	1	20	2	22
			Total Workload (Hours)	152
			[Total Workload (Hours) / 25*] = **ECTS**	6
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	To learn the basic concepts of categorical data analysis
2	To be able to comprehend the advanced statistical methods for categorical data.
3	Choosing the appropriate model in categorical data analysis
4	To be able to analyze categorical data by using packaged software
5	To be able to present statistical results and conclusions in both written and oral form appropriately.

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*

	L2	L5
P1	3	3
P2	4	4
P3	4	3
P4	3	4
P5	3	4
P6	4	3
P7	3	3
P8	4	3
P9	4	3
P10	3	4