



**AYDIN ADNAN MENDERES UNIVERSITY**  
**GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES**  
**LANDSCAPE ARCHITECTURE**  
**LANDSCAPE ARCHITECTURE**  
**LANDSCAPE ARCHITECTURE MASTER**  
**COURSE INFORMATION FORM**

Course Title	Methods of Statistical Analysis in Landscape Architecture								
Course Code	ZPM528			Course Level		Second Cycle (Master's Degree)			
ECTS Credit	8	Workload	200 (Hours)	Theory	3	Practice	0	Laboratory	0
Objectives of the Course	The purposes of this course are to provide information about quantitative, qualitative and mixed method procedures, evaluation of data collected in the research, identification of basic statistical methods, determination of appropriate statistical method (s) for the collected data, using SPSS statistical program, classifying, analyzing and interpreting the results of the analysis, and gaining the ability to examine a research article statistically.								
Course Content	The contents of this course are basic statistical concepts, variables, descriptive statistics, table and graphic editing in computer environment, introduction to SPSS program menus and data entry, parametric tests and its application in SPSS program, nonparametric tests and its application in SPSS program, correlation analysis and its application in SPSS program, Z-Test and T-Test, ANOVA and Regression analyses.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Demonstration, Case Study, Individual Study								
Name of Lecturer(s)									

#### Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	30
Final Examination	1	40
Assignment	2	30

#### Recommended or Required Reading

1	Creswell, J.W. (2009) Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. SAGE Publications, Los Angeles.
2	Creswell, J.W. (2008) Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research. PEARSON Merrill Prentice Hall, New Jersey.
3	Holcomb, Z.C. (2009) SPSS Basics: Techniques for a First Course in Statistics. Pyrczak Publishing. California.
4	Kalaycı, Ş. (2010) SPSS Applied Multivariate Statistical Techniques. Asil broadcasting Distribution Ltd. Sti. Ankara.

Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction to course: content, reason, importance, process method and needs
2	Theoretical	Quantitative, qualitative and mixed methods
3	Theoretical	Variables: Categorical (Nominal and Ordinal), Scale (Interval and Ratio). SPSS Application (Entering a series of data to SPSS programs, learning the difference between numeric data and string data, learning variable view and data view)
4	Theoretical	Frequency distribution, Descriptive Charts and Tables: Tables (one-way, two-way, multi-directional), Graphics (histogram, line, pie, bar, relationship chart, etc.) SPSS application
5	Theoretical	Descriptive statistics: 1) Central tendency measures (Arithmetic mean, median, mode), Mean Deviation (Variance, Standard deviation) Normality Standard deviation (Single, double or multivariate normal distribution, and skewness), defining independent and dependent variables. SPSS application
6	Theoretical	Z-Scores, scatterdgram and determination of hypotheses (null hypothesis alternative hypothesis), single and double tailed tests, Type I and Type II error, level of significance. SPSS application
7	Theoretical	Correlation Analysis (Pearson r and Spearman's rho). SPSS application
8	Theoretical	Midterm exam
9	Theoretical	T-Test: One Sample T-Test, Paired-Samples T-Test and Independent-Samples T-Test. SPSS application
10	Theoretical	Chi-Square Test
11	Theoretical	ANOVA: One-Way ANOVA, Two-Way ANOVA. SPSS Application
12	Theoretical	Simple Linear Regression and Multilevel Linear Regression Analysis. SPSS application
13	Theoretical	Case study works
14	Theoretical	Student works



15	Theoretical	Student works
16	Theoretical	Final exam

**Workload Calculation**

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	10	2	168
Assignment	2	4	1	10
Midterm Examination	1	9	1	10
Final Examination	1	11	1	12
Total Workload (Hours)				200
[Total Workload (Hours) / 25*] = ECTS				8

\*25 hour workload is accepted as 1 ECTS

**Learning Outcomes**

1	To learn quantitative, qualitative and mixed method.
2	Learning to evaluate the data collected in the research,
3	To be able to determine appropriate statistics method for data,
4	To learn statistical analysis methods (T-Test, Chi-Square, Correlation, ANOVA, Regression) and to interpret the results
5	To gain the ability to examine a research article statistically
6	Learning to use the SPSS program

**Programme Outcomes (Landscape Architecture Master)**

1	e
2	e
3	e
4	e
5	e

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

	L1	L2	L3	L4	L5	L6
P2	5	5				
P3	4	4				5
P4			5	5	4	

