



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Statistical Methods With Computer Applied							
Course Code		FEK514		Couse Level		Second Cycle (Master's Degree)			
ECTS Credit	5	Workload	125 (<i>Hours</i>)	Theory	3	Practice	0	Laboratory	0
Objectives of the Course		The aim of this course is to enable students to have information about the basic issues related with statistics and to provide how to analyze data easily with the computer .							
Course Content		Basic Statistical Concepts, Types of Random Variable and Levels of Measurement, Menus of SPSS, Entrance of Data, Forming Table, Graphs, Measures of Central Tendency and Measures of Dispersion, Definition of Probability and its Counting Techniques, Normal Distribution, Standard Normal Distribution, Hypothesis Testing, One -Sided Analysis of Variance, Chi – Square Tests, Simple Linear Regression Analysis							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Demonstration					
Name of Lecturer(s)									

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

Recommended or Required Reading

1	Kazım Özdamar, Paket Programlar ile İstatistiksel Veri Analizi, Cilt I, 9.Baskı, Ankara, 2013
2	Özkan Ünver, Hamza Gangam,Bülent Altunkaynak, SPSS Uygulamalı Temel İstatistik Yöntemler, 7.Baskı,2013
3	Quick, J. M., Statistical Analysis in R: Beginners Guide, Packt Publishing, Birmingham, UK, 2010.

Week	Weekly Detailed Course Contents	
1	Theoretical	Contents, Textbooks. Basic statistical concepts, Types of Random variable, Levels of Measurement
2	Theoretical	Menus of SPSS (File, Edit, Data, Transform, Statistics, Graph), Entrance of data sets, frequency tables and crosstab tables
	Practice	Menus of SPSS (File, Edit, Data, Transform, Statistics, Graph), Entrance of data sets, frequency tables and crosstab tables
3	Theoretical	To Constitute Frequency Tables for Classified and Grouped Data, To constitute Multidimensional Tables, Graphs: Histogram, Line Graph, Pie Charts, Scatter Plot, Box Plot
	Practice	To Constitute Frequency Tables for Classified and Grouped Data, To constitute Multidimensional Tables, Graphs: Histogram, Line Graph, Pie Charts, Scatter Plot, Box Plot
4	Theoretical	Descriptive Statistics: Measures of Central Tendency (Arithmetic Mean, Median and Mod, Quartiles)
5	Theoretical	Measures of Dispersion: Range, Variance, Standard Deviation, Coefficient of Variation, Basic probability concepts. Definitions of Probability.
6	Theoretical	Probability Counting Techniques. Permutation and Combination. Total Probability Law and Bayes Theorem
7	Theoretical	Normal and Standard Normal Distribution and Theirs Applications.
	Practice	Normal and Standard Normal Distribution and Theirs Applications.
8	Intermediate Exam	Midterm
9	Theoretical	Hypothesis Testing, One and Two Sided Tests, One – Sample Hypothesis Testing for Population Mean and Its Interval Estimation
10	Theoretical	Two Samples Hypothesis Testing for Two Population Means, Dependent Samples Test and Theirs Interval Estimations
11	Theoretical	Analysis of Variance, One – Sided Analysis of Variance
12	Theoretical	Chi – Square Homogeneity and Independence Tests
13	Theoretical	Chi – Square Homogeneity and Independence Tests
14	Theoretical	Significance Control of Model and Its Coefficients, The Coefficient of Correlation
15	Theoretical	Revision



16	Final Exam	Final Exam
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Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	7	4	3	49
Lecture - Practice	7	4	3	49
Midterm Examination	1	10	1	11
Final Examination	1	15	1	16
Total Workload (Hours)				125
[Total Workload (Hours) / 25*] = ECTS				5
*25 hour workload is accepted as 1 ECTS				

Learning Outcomes	
1	To distinguish the types of random variable
2	Knowledge of basic concept related with hypothesis testing
3	To distinguish the differences between levels of measurement
4	Knowledge of basic statistical concepts
5	Knowledge of basic concept related with one sided analysis of variance
6	Knowledge of reading statistical tables
7	Knowledge of basic probability
8	To expose the existence of relation between two variables
9	Modeling the relation between two variables using regression analysis technique
10	Knowledge of making forward estimation using a model which is established between two variables
11	Knowledge of data entrance and analysis in the computer program

Programme Outcomes (Econometrics Master)	
1	Understanding the concept of econometric
2	Ability to estimate econometric models
3	Test to the estimated reliability of the econometric model
4	Learning time series analysis
5	Recognition of financial assets and analysis that estimates the decisions of economic units
6	Be able to use econometric methods developed specifically for analysis of financial data
7	To be able to use computer programs needed in the field financial economics as well as information and communication technologies in advanced levels
8	Provision of the information that will be base for the econometric applications on money theories, theories of international trade and finance
9	Considering a scientific research,to be able to make a profound literature research, analysis,estimations and reporting findings in a scientific work

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	L7	L8	L9	L10	L11
P1	5	4	4	4	4	4	3	4	5	4	4
P2	4	4	4	3	2	3	3	4	5	3	3
P3	3	4	4	4	5	5	3	4	5	3	3
P4	4	3	3	3	3	3	2	3	3	5	4
P5	3	2	3	4	4	3	5	4	5	5	2
P6	3	3	4	4	3	3	3	4	5	5	3
P7	3	3	4	3	3	3	4	4	4	4	5
P8	4	3	3	4	4	4	3	3	3	3	3
P9	3	4	4	2	2	3	4	4	4	2	4

