



AYDIN ADNAN MENDERES UNIVERSITY
GRADUATE SCHOOL OF SOCIAL SCIENCES
ECONOMICS
ECONOMICS
ECONOMICS MASTER
COURSE INFORMATION FORM

Course Title	Data Analysis – II								
Course Code	EKO520	Course Level			Second Cycle (Master's Degree)				
ECTS Credit	5	Workload	124 (Hours)	Theory	3	Practice	0	Laboratory	0
Objectives of the Course	The main objective of this course is to provide a basic understanding of data analysis concepts and to use it in applications with the R software. The course will cover basic approaches in statistical inference as well as an introduction to basic machine learning algorithms.								
Course Content	The main subjects of the course are graphical and quantitative methods to describe data, using statistics models, verifying model assumptions using statistics, testing hypothesis and applying basic machine learning algorithms in engineering problems.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation)								
Name of Lecturer(s)									

Assessment Methods and Criteria

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

Recommended or Required Reading

1	SPSS ile veri analizi, Nuran Bayram, N.(2009), SPSS ile veri analizi, Seçkin yayıncılık, Ankara.
2	Introductory Statistics with R, P. Dalgaard, Springer, 2008 Practical Data Science with R, N. Zumel and J. Mount, Manning Publications, 2014
3	Data Analysis and Graphics using R: An Example-Based Approach, J. Maindonald and W.J. Braun, Cambridge University Press, 2010 ISBN 0521762936.

Week	Weekly Detailed Course Contents	
1	Theoretical	Compilation of data
2	Theoretical	Transferring data to a computer
3	Theoretical	Tables and Charts
4	Theoretical	Averages
5	Theoretical	Dispersion and tilt measurements
6	Theoretical	Index numbers
7	Intermediate Exam	Revision of Midterm Exams
8	Intermediate Exam	Midterm Exams
9	Theoretical	Regression and correlation analysis
10	Theoretical	Hypothesis testing
11	Theoretical	Hypothesis testing
12	Theoretical	Non-parametric tests
13	Theoretical	Non-parametric tests
14	Theoretical	Non-parametric tests
15	Final Exam	Final Exams

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	15	3	3	90
Midterm Examination	1	10	2	12



Final Examination	1	20	2	22
	Total Workload (Hours)			124
	[Total Workload (Hours) / 25*] = ECTS			5
*25 hour workload is accepted as 1 ECTS				

Learning Outcomes

1	Describe various styles of interpretation of qualitative data
2	Articulate the relative appropriateness of different analysis approaches for a particular qualitative study
3	Have enough knowledge of mathematics to understand the theory and application of statistics
4	To be able to use the resources related to statistics
5	Can use the abstract and analytical thinking ability

Programme Outcomes (Economics Master)

1	To be able to bring up specialized economists with competent knowledge in the field of economics.
2	To be able to train Master of Economics graduates to be employed at public and private banks, education and research institutions.
3	To be able to complete a master's degree in Economics with the competence and ability to analyze macro and microeconomic issues.
4	To be able to examine Turkey's economic policies and determine what policies will be successful in determining the economic state.
5	To be able to give insight to self educate about financial markets and international financial markets.
6	To be able to succeed in the examining the economic thought systems and their influences on the current economic policies.
7	To be able to educate students as those who are knowledgeable about Turkey-EU economic relations and equipped to interpret on the issue
8	To be able to assess the higher levels of development gap between the regions of Turkey and to deal with those problems with the perspective of social and economic diversities. i
9	To be able to introduce the market with specialists in economics mastering the new dynamics of change in the economy and the new role of the state.
10	To be able to increase the development of knowledge and technology in Turkey by examining their reflections on the economy.
11	To be able to have knowledge and capacity to assess the financial crises in Turkey,
12	To be able to increase awareness about monitoring Turkey's economic history.
13	To be able to bring up specialists who can reach the data about the structure of the labor force and unemployment rates to make the data analysis with these data.

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	4	4	4	4
P3	4	4	4	4	4
P4	4	4	4	4	4
P5	4	4	4	4	4
P6	4	4	4	4	4
P7	4	4	4	4	4
P8	4	4	4	4	4
P9	4	4	4	4	4
P10	4	4	4	4	4
P11	4	4	4	4	4
P12	4	4	4	4	4
P13	4	4	4	4	4

