AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Regression Analysis						
Course Code	MTK523		Couse Level		Second Cycle (Master's Degree)		
ECTS Credit	7	Workload	175 *(Hours)*	Theory	3	Practice	0	Laboratory	0
Objectives of the Course	This course introduces fundamental experiment design and analysis of variance						
Course Content	Point estimation and interval estimation, Testing hypothesis, The multivariate normal distribution, Linear models, Functional relationships, Regression models Experimental design models, Factorial models, Analysis of varians, Analysis of covarians.						
Work Placement	N/A						
Planned Learning Activities and Teaching Methods			Explanation (Presentation), Discussion, Individual Study, Problem Solving				
Name of Lecturer(s)							

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	30
Final Examination	1	50
Assignment	1	20

Recommended or Required Reading

1	Mood A.M.,GraybillF.G., An Introduction to Statistics Theory Çeviri Prof.Dr. Süeda Moralı Özarkadaş Matbaası İstanbul 1973.
2	Kendal M.,Stuart A., Ord J.K., The Advanced Theory of Statistics. Charles griffin com. London 1983.
3	Hill Book Com. İnc. NewYork Graybill F.A., An Indroduction to Linear Statistical Models, McGraw-1961.

Week	Weekly Detailed Course Contents	
1	Theoretical	Point estimation and interval estimation
2	Theoretical	Testing hypothesis
3	Theoretical	The multivariate normal distribution
4	Theoretical	Distribution of quadratic forms
5	Theoretical	Linear models
6	Theoretical	The general linear of full rank
7	Theoretical	Functional relationships
8	Theoretical	Regresyon modeli
9	Theoretical	Experimental design models
10	Intermediate Exam	Midterm Exam
11	Theoretical	Factorial models
12	Theoretical	Analysis of varians
13	Theoretical	Incomplete block models
14	Theoretical	Latin squares
15	Theoretical	Analysis of covarians
16	Final Exam	FINAL EXAM

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	3	3	84
Assignment	1	10	2	12
Midterm Examination	1	32	2	34
Final Examination	1	43	2	45
			Total Workload (Hours)	175
			[Total Workload (Hours) / 25*] = **ECTS**	7

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	To be able comprehend Point estimation and interval estimation
2	Testing hypothesis, The multivariate normal distribution
3	Linear models, Functional relationships, Regression models Experimental design models
4	Factorial models, Analysis of varians, Analysis of covarians
5	To be able to use mathematical concepts in solving certain types of problems

Programme Outcomes *(Mathematics Master)*

1	To be able to have an adequate theoretical and practical domain knowledge.
2	To be able to comprehend the interdisciplinary interaction associated with Mathematics.
3	To be able to use theoretical and practical domain knowledge gained in the field of Mathematics.
4	To be able to interpret knowledge from different disciplines integrating knowledge in the field of mathematics and produce new information.
5	To be able to define, analyse, model and to solve the problems by scientific methods in Mathematics.
6	To be able to conduct a math related specialistic study independently.
7	To be able to develop new strategic approaches to solve problems occurred in unforeseen and complex math-related applications by taking responsibility.
8	To be able to lead in situations that require solving problems related to the mathematics.
9	To be able to criticize his/her knowledge and skills acquired in the field mathematics.
10	To be able to transfer his/her ideas and suggestions for solutions to problems by supporting quantitative or qualitative data verbally and in writing.
11	To be able to communicate both orally and written in a foreign language.
12	To be able to use computer hardware and information technologies with software required by Mathematics.
13	To be able to contribute to the solution of the social, scientific, cultural and ethical problems related to the Mathematics, and being able to support the development of social, scientific, cultural and ethical values.
14	To be able to develop mathematics-related strategies, policies and operational plans, and to evaluate the results obtained within the framework of quality processes.
15	To be able to use his/her knowledge in the field of mathematics and practical problem-solving skills in interdisciplinary studies.

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	3	4	4	4	4
P2	3	4	4		
P3	3	4	4	4	4
P4	3	4	4		
P5		4	4		
P7		4	4		4
P12	3			5	4
P15	4	4	4	3	4