

MATHEMATICAL STATISTICS

1	Course Title:	MATHEMATICAL STATISTICS
2	Course Code:	MAT3039
3	Type of Course:	Optional
4	Level of Course:	First Cycle
5	Year of Study:	3
6	Semester:	5
7	ECTS Credits Allocated:	5.00
8	Theoretical (hour/week):	3.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	0
11	Prerequisites:	Mat 2017 Probablity and Statistics
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Prof. Dr. EMRULLAH YAŞAR
15	Course Lecturers:	Fen-Edebiyat Fakültesi Matematik Bölümü tüm öğretim üyeleri
16	Contact information of the Course Coordinator:	e-posta:eyasar@uludag.edu.tr Telefon:0224 29 41 768 Adres:U.Ü Fen-Edb. Fak. Mat. Böl. B102 Görükle Bursa
17	Website:	
18	Objective of the Course:	Basic concepts of mathematical statistics. In addition, theoretical aspects of sampling techniques, hypothesis testing, variance analysis, regression and correlation analysis, and applications.
19	Contribution of the Course to Professional Development:	Gain the background to follow new developments in the field of mathematical statistics
20	Learning Outcomes:	
	1	Learns the basic concepts and theory of statistics.
	2	Acquires s the basic theory of sampling techniques
	3	Acquires the basic theory of hypothesis testing.
	4	Learns the variance analysis and its basic theory.
	5	Learns the regression analysis and its basic theory.
	6	Learns the correlation analysis and its basic theory.
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21	Course Content:	
	Course Content:	
Week	Theoretical	Practice
1	Sampling Theory	
2	Sampling Theory and the distributions, Random numbers	
3	Estimation theory, a point estimate,	
4	Sampling Techniques I	
5	Sampling Techniques II	

6	Hypothesis Testing I	
7	Midterm exam,Hypothesis Testing I	
8	Hypothesis Testing II	
9	Variance Analysis I	
10	Variance Analysis II	
11	Correlation Analysis I	
12	Correlation Analysis II	
13	Nonparametric Methods	
14	General review and applications	

22	Textbooks, References and/or Other Materials:	1) Prof.Dr. Fikri Akdeniz Probability and Statistics Nobel Publishing (in Turkish). 2) Prof. Dr. Aziz Bener, Mathematical Statistics I, II, YTU Publishing (in Turkish).
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23	Assesment	
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TERM LEARNING ACTIVITIES	NUMBER	WEIGHT
Midterm Exam	1	40.00
Quiz	0	0.00
Home work-project	0	0.00
Final Exam	1	60.00

Activites	Number	Duration (hour)	Total Work Load (hour)
Contribution of Final Exam to Success Grade	60.00	3.00	42.00
Practicals/Labs	0	0.00	0.00
Self-study and preparation	14	3.00	42.00
Measurement and evaluation Techniques Used in the	14	3.00	42.00
Homeworks	14	3.00	42.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00

24. ECTS / WORK LOAD TABLE			
Midterm exams	1	6.00	6.00
Others	2	6.00	12.00
Final Exams	1	6.00	6.00
Total Work Load			156.00
Total work load/ 30 hr			5.00
ECTS Credit of the Course			5.00

25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1	4	4	1	1	1	1	1	1	1	1	0	0	0	0	0	0
ÖK2	4	4	1	1	1	1	1	1	1	1	0	0	0	0	0	0
ÖK3	4	4	1	1	1	1	1	1	1	1	0	0	0	0	0	0
ÖK4	4	4	1	1	1	1	1	1	1	1	0	0	0	0	0	0

ÖK5	4	4	1	1	1	1	1	1	1	1	0	0	0	0	0	0
ÖK6	4	4	1	1	1	1	1	1	1	1	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	1 very low		2 low		3 Medium		4 High		5 Very High							