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:	
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).
23	Assesment	

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

24 ECTS / WORK LOAD TABLE

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	3.00	42.00
Practicals/Labs	0	0.00	0.00
Self study and preperation	14	3.00	42.00
Homeworks	14	3.00	42.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	6.00	6.00
Others	2	6.00	12.00
Final Exams	1	6.00	6.00
Total Work Load			150.00
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

Contrib ution Level:	1 very low	2 low	3 Medium	4 High	5 Very High