

MATHEMATICAL STATISTICS

1	Course Title:	MATHEMATICAL STATISTICS
2	Course Code:	EKO3201
3	Type of Course:	Compulsory
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:	No
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Prof. Dr. Nuran Bayram
15	Course Lecturers:	
16	Contact information of the Course Coordinator:	E-posta:nuranb@uludag.edu.tr Telefon:0224 2941126 Adres:Uludağ Üniversitesi Görükle Kampüsü İktisadi ve İdari Bilimler Fakültesi Ekonometri Bölümü
17	Website:	
18	Objective of the Course:	The objective of this course is to gain the knowledge of mathematical statistics perspective and to teach how to use these in the circumstances of business world.
19	Contribution of the Course to Professional Development:	
20	Learning Outcomes:	
	1	To be able to perform knowledge related to probability theory in the social life
	2	To be able to recognize and use random variables functions
	3	To be able to comprehend the basics of discrete and continuous distributions
	4	To be able to use the relations between distributions
	5	To be able to perform point, interval estimations and hypothesis testing of averages, proportions, variances related to population in case of small sample
	6	To be able to perform point, interval estimations and hypothesis testing of averages, proportions, variances related to population in case of big sample

		7	To be able to build and test hypothesis about more than two population parameters		
		8	To be able to perform nonparametric analysis of Variance techniques		
		9			
		10			
21	Course Content:				
	Course Content:				
Week	Theoretical		Practice		
1	Probability				
2	Random variables				
Activites			Number	Duration (hour)	Total Work Load (hour)
Theoretical					
6	Expected value, variance and moments		14	3.00	42.00
Practicals/Labs			0	0.00	0.00
Self study (Mid-Term Exam)			14	3.00	42.00
Homeworks			0	0.00	0.00
9	Continuous distributions		0	0.00	0.00
Field Studies			0	0.00	0.00
11	Statistical decision theory and decision making		1	20.00	20.00
Others			1	15.00	15.00
12	Statistical decision theory and decision making		1	30.00	30.00
Total Work Load					149.00
14	Workload analysis				4.97
ECTS Credit of the Course					5.00
22	Textbooks, References and/or Other Materials:		Mustafa Aytaç, Matematiksel İstatistik, 6th Ed, Ezgi Kitabevi, Bursa, 2017. Robert V. Hogg, Joseph W. McKean, Allen Thornton Craig, Introduction to Mathematical Statistics, Pearsin Education, 2005. Irvin Miller, Maryless Miller, John E. Freund's Mathematical Statistics, Prentice-Hall, New Jersey, 1999. Steven F. Arnold, Mathematical Statistics, 1990. Ron C. Mithelhammer, Mathematical Statistics for Economics and Business, Springer-Verlag, New Springer-Verlag, New York, 1996.		
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
Total		2	100.00
Contribution of Term (Year) Learning Activities to Success Grade			40.00
Contribution of Final Exam to Success Grade			60.00
Total			100.00
Measurement and Evaluation Techniques Used in the Course			
24	ECTS / WORK LOAD TABLE		

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	3	4	4	3	3	4	3	4	3	3	4	0	0	0	0
ÖK2	3	4	4	3	4	4	3	4	4	3	4	3	0	0	0	0
ÖK3	4	3	3	4	4	4	3	3	4	3	4	3	0	0	0	0
ÖK4	3	4	3	3	4	4	5	4	4	3	4	4	0	0	0	0
ÖK5	4	4	4	3	3	4	5	5	5	3	3	3	0	0	0	0
ÖK6	4	4	4	5	3	4	5	5	5	3	5	4	0	0	0	0
ÖK7	3	4	4	4	4	3	2	3	3	4	3	4	0	0	0	0
ÖK8	4	5	3	4	3	3	4	4	4	4	4	4	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	1 very low		2 low		3 Medium		4 High		5 Very High							