

STATISTICS FOR FINANCE

1	Course Title:	STATISTICS FOR FINANCE	
2	Course Code:	EKO5123	
3	Type of Course:	Optional	
4	Level of Course:	Second Cycle	
5	Year of Study:	1	
6	Semester:	1	
7	ECTS Credits Allocated:	4.00	
8	Theoretical (hour/week):	2.00	
9	Practice (hour/week):	0.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:	None	
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Prof. Dr. SEVDA GÜRSAKAL	
15	Course Lecturers:		
16	Contact information of the Course Coordinator:	Prof. Dr. Sevda GÜRSAKAL Uludağ Üniv. İİBF Ekonometri Bölümü Görükle Kampüsü Bursa Tel: 0.224.2941112 sdalgic@uludag.edu.tr	
17	Website:		
18	Objective of the Course:	Aim of the course is defining risk and risk analysis, teaching statistical risk analysis methods.	
19	Contribution of the Course to Professional Development:	It has a contribution towards forming a basis for the development of students' professional skills related to statistical risk analysis.	
20	Learning Outcomes:		
		1	To be able to learn basic information about risk and risk analysis concepts, relationship between risk and uncertainty.
		2	To be able to learn and apply basic statistical methods for risk analysis.
		3	To be able to learn theory of Probability, importance of probability for risk analysis, discrete and continuous probability distributions.
		4	To be able to learn types of risks faced in the financial sector.
		5	To be able to learn concept of risk management and traditional risk management methods.
		6	To be able to learn an important risk management method called Value at Risk and it's parameters.
		7	To be able to learn and apply Variance-Covariance (Var-Cov), Delta Normal and Delta Gamma methods.
		8	To be able learn and calculate nonparametric methods used for calculating Value at Risk.
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		10	
21	Course Content:		
		Course Content:	
Week	Theoretical	Practice	

1	Basic Concepts of Risk Analysis	
2	Theory of Probability	
3	Monte Carlo Simulation	
4	Random Processes	
5	Probability Distributions	
6	Quantifying Uncertainty About Model Parameters	
7	Building Risk Analysis Model	
8	Fitting Distributions to Data	
9	Defining Distributions from Expert Opinion	
10	Monte Carlo Simulation Applications	
11	Assessment of Model	
12	Risk Assessment	
13	Insurance Risk modeling	
14	Finance Risk Modeling	

22	Textbooks, References and/or Other Materials:	<p>1- Risk Analysis: A Quantitative Guide , David Vose WILEY; 3 EDITION (MAY 19, 2008)</p> <p>2- Probabilistic Risk Analysis: Foundations And Methods Tim Bedford And Roger Cooke ;Cambridge University Press; 1 Edition 2001)</p>
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Activities		Number	Duration (hour)	Total Work Load (hour)
23	Theoretical Assessment	14	2.00	28.00
	Practicals/Labs	0	0.00	0.00
	Self study and preparation	14	3.00	42.00
	Midterm Exam	1	0.00	0.00
	Homeworks	2	15.00	30.00
	Projects	0	0.00	0.00
	Home work project	0	0.00	0.00
	Field Studies	0	0.00	0.00
	Final Exam	1	0.00	0.00
	Midterm exams	1	0.00	0.00
	Total	14	18.00	100.00
	Others	0	0.00	0.00
	Contribution of Term (Year) Learning Activities to Success Grade	1	25.00	25.00
	Total Work Load			125.00
	Total work load/ 30 hr			4.17
	Total	14	18.00	100.00
	ECTS Credit of the Course			4.00
	Measurement and Evaluation Techniques Used in the Course	Measurement and evaluation are made with multiple choice test questions and written questions.		

24	ECTS / WORK LOAD TABLE
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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	1	4	2	1	1	3	1	1	1	1	1	1	0	0	0	0
ÖK2	4	4	4	2	3	3	3	3	4	4	4	4	0	0	0	0
ÖK3	4	4	4	2	3	3	3	3	4	4	4	4	0	0	0	0

ÖK4	1	4	2	1	1	3	1	1	1	1	1	1	0	0	0	0
ÖK5	1	4	2	1	1	3	1	1	1	1	1	1	0	0	0	0
ÖK6	4	4	4	4	3	3	3	3	4	4	4	4	0	0	0	0
ÖK7	4	4	4	3	4	4	3	3	4	4	4	4	0	0	0	0
ÖK8	4	4	4	2	3	4	3	3	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			