

## DECISION ANALYSIS

1	Course Title:	DECISION ANALYSIS
2	Course Code:	ISL6102
3	Type of Course:	Compulsory
4	Level of Course:	Third Cycle
5	Year of Study:	1
6	Semester:	2
7	ECTS Credits Allocated:	6.00
8	Theoretical (hour/week):	3.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	0
11	Prerequisites:	
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Doç. Dr. GÜL EMEL
15	Course Lecturers:	
16	Contact information of the Course Coordinator:	Doç.Dr.Gül GÖKAY EMEL (224) 294 10 55 ggokay@uludag.edu.tr
17	Website:	
18	Objective of the Course:	To teach designing decision models, utility – risk assesment methods, decision trees and multicriteria decision making methods and to develop the students' ability to make optimum business decisions fastly by using the knowledge.
19	Contribution of the Course to Professional Development:	Ensuring that business decisions are made in a correct, timely, low cost, and high application performance.
20	Learning Outcomes:	
	1	To know decision making processes
	2	To know Utility – Individual's Utility functions and Risk
	3	To comprehend Decision Trees and sequential decision making
	4	To understand Multiobjective and Multicriteria Decision Making methods
	5	To be able to design business problems as a quantitative models
	6	To be able to apply the solution methods on the quantitative decision models
	7	To interpret and use a model during decision making processes
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21	Course Content:	
	<b>Course Content:</b>	
Week	Theoretical	Practice
1	Decision Theory	
2	Utility Theory, Utility Function and Prospect Theory	

3	Decision Making Under Uncertainty	
4	Decision Making Under Risk	
5	Attitude Toward Risk, Individual's Utility Function and its Relationship with Attitude Toward Risk	
6	Game Theory	
7	Decision Trees	
8	Baye's Rules and Decision Trees	
9	Multi Objective Decision Making and Goal Programming	
10	Multicriteria Decision Making and Analytic Hierarchy Process	
11	TOPSIS, VIKOR ve ELECTRE Methods	
12	Multicriteria Utility Function	
13	Effectiveness Measurement and Data Envelopment Analysis	
14	Stochastic Process and Markov Chains	

22	Textbooks, References and/or Other Materials:	Wayne Winston, Operations Research, Aydın Ulucan, Yöneylem Araştırması, H.Tütek/Ş.Gümüsoğlu, Sayısal Yöntemler (Yönetmel Yaklaşım), Mehpere Timor, Analitik Hiyerarşi Prosesi,Türkmen Kitapevi, 2011.
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Activites	Number	Duration (hour)	Total Work Load (hour)
Midterm Exam	0	0.00	
Theoretical Quiz	0	0.00	
Practicals/Labs	0	0.00	0.00
Homework project	2	14.00	
Self study and preperation	1	14.00	3.00
Final Exam	1	60.00	42.00
Homeworks	2	40.00	80.00
Total Projects	0	0.00	0.00
Contribution of Term (Year) Learning Activities to	40.00		
Field Studies	0	0.00	0.00
Midterm exams	0	0.00	0.00
Contribution of Final Exam to Success Grade	60.00		
Others	0	0.00	0.00
Final Exams	1	20.00	20.00
Measurement and Evaluation Techniques Used in the Homework, Project and Final Exam			
Total Work Load			184.00
Total work load/30 hrs			6.13
24	ECTS/WORK LOAD TABLE		
ECTS Credit of the Course			6.00

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	5	5	2	2	3	4	5	4	5	5	5	0	0	0	0	0
ÖK2	3	3	2	3	2	2	4	4	5	5	5	0	0	0	0	0
ÖK3	3	3	1	1	2	3	5	5	5	5	5	0	0	0	0	0
ÖK4	4	3	1	3	2	2	4	5	5	5	5	0	0	0	0	0

ÖK5	3	3	1	4	1	5	5	5	5	5	5	0	0	0	0	0
ÖK6	2	3	4	4	2	3	5	5	5	4	5	0	0	0	0	0
ÖK7	4	4	2	5	3	4	4	5	5	5	5	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			