



**AYDIN ADNAN MENDERES UNIVERSITY
GRADUATE SCHOOL OF SOCIAL SCIENCES
MANAGEMENT INFORMATION SYSTEMS
MANAGEMENT INFORMATION SYSTEMS
MANAGEMENT INFORMATION SYSTEMS MASTER
COURSE INFORMATION FORM**

Course Title	Fuzzy Logic								
Course Code	MIS520	Course Level			Second Cycle (Master's Degree)				
ECTS Credit	7	Workload	180 (Hours)	Theory	3	Practice	0	Laboratory	0
Objectives of the Course	Applicaton of decision making methods obtainin opinions of a group. Learning and implementation of fuzzy multi-criteria decision making methods								
Course Content	Introduction to multi-criteria decision making Fuzzy numbers and calculation AHP and Fuzzy AHP ANP and Fuzzy ANP DEMATEL and Fuzzy DEMATEL Hybrid DEMATEL and ANP Methods TOPSIS and Fuzzy TOPSIS Hybrid ANP and TOPSIS Methods VIKOR Method PROMETHEE Method Gray Relational Analysis Fuzzy Goal Programming Project Presentations Project Presentations								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Demonstration, Discussion, Case Study, Project Based Study, Individual Study, Problem Solving								
Name of Lecturer(s)									

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

Recommended or Required Reading

1	Fuzzy Logic with Engineering Applications:- Timothy J. Ross
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Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction to multi-criteria decision making
2	Theoretical	Fuzzy numbers and calculation
3	Theoretical	AHP and Fuzzy AHP
4	Theoretical	ANP and Fuzzy ANP
5	Theoretical	DEMATEL and Fuzzy DEMATEL
6	Theoretical	Hybrid DEMATEL and ANP Methods
7	Theoretical	TOPSIS and Fuzzy TOPSIS
8	Intermediate Exam	midterm
9	Theoretical	Hybrid ANP and TOPSIS Methods
10	Theoretical	VIKOR Method
11	Theoretical	PROMETHEE Method
12	Theoretical	Gray Relational Analysis
13	Theoretical	Project Presentations
14	Theoretical	Project Presentations
15	Final Exam	Final



Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	16	2	3	80
Assignment	1	0	20	20
Project	1	0	12	12
Individual Work	16	0	3	48
Midterm Examination	1	5	5	10
Final Examination	1	5	5	10
Total Workload (Hours)				180
[Total Workload (Hours) / 25*] = ECTS				7

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	Understanding and implementation of multi-criteria decision making methods
2	Making decisions using expert opinions of a group
3	Application of fuzzy multi-criteria and group decision making techniques using fuzzy linguistic terms
4	Interpret systems containing turbidity within the scope of fuzzy set theory.
5	Use fuzzy set theory and decision theory together.

Programme Outcomes (Management Information Systems Master)

1	Be aware of the different types of information technologies and systems using in business, have enough knowledge to design a suitable system
2	Analyse the needs for an information systems and have control over the processes at the analysis, design and implementation stages of the database that belongs to the system
3	Convey information about current trends and their own studies both verbally and visually ways.
4	Be able to follow current developments in modern business techniques and technologies, especially information technologies
5	Understand the interaction between his department and other relational departments, if necessary make a team, take responsibility and do the works with team.
6	Know the information technologies and systems using in different types of business, if necessary take the system responsibility.
7	Be aware of the social transformation especially in their own field and social, legal and moral responsibilities belongs to other work field.
8	Develop their knowledge to the level of expertise which they learn them in license level.
9	Carry out a work which requires an expertness in their field.
10	Construct and perform an academic work.

Contribution of Learning Outcomes to Programme Outcomes 1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High

	L1	L2	L3	L4	L5
P1	4	5	4	4	
P2	4	5	5	5	5
P3	5		5	5	
P4	5	5	5	5	4
P5	5	5	5	4	4
P6	4	5		4	4
P7	4	4	5	4	4
P8	4	5	5	4	4
P9	5	5	5	4	4
P10	5	5	5	4	4

