AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title		Multi Criteria Decision Making in Logistics						
Course Code		LYM528		Couse Level		Second Cycle (Master's Degree)		
ECTS Credit	5	Workload	127 *(Hours)*	Theory	3	Practice	0	Laboratory	0

Objectives of the Course	The aim of this course is to provide the students with an introductory information about modeling of problems encountered in decision-making situations in uncertainty, risk, certainty and multinational environments, development of solution proposals and analysis.
Course Content	In this course, the student learns the theoretical methods of choosing the most over multiple alternatives. Learns the assumptions and steps of the methods you can use in the literature in order to choose among the selected alternatives.
Work Placement	N/A
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Discussion, Individual Study
Name of Lecturer(s)	Assoc. Prof. Algın OKURSOY

Assessment Methods and Criteria

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

Recommended or Required Reading

1	Robert T. Clemen, Terence Reilly, Making Hard Decisions With Decision Tools, Duxbury Thomson Learning, 2001; ISBN13: 9780495015086; ISBN10: 0495015083.

Week	Weekly Detailed Course Contents	
1	Theoretical	Fundamentals of Decision: Elements of the decision problem
2	Theoretical	Decision making process; Decision Environments
3	Theoretical	Decision making in uncertain environment
4	Theoretical	Decision making under risk
5	Theoretical	Risk attitudes
6	Theoretical	Decision Making with Decision Tree and Additional Information
7	Theoretical	Decision tree, Bayes theorem
8	Theoretical	AHP: Solution phases of the analytical hierarchy process
9	Intermediate Exam	Midterms
10	Intermediate Exam	Midterms
11	Theoretical	ANP: Solution phases of the analytical network process
12	Theoretical	TOPSIS: Solution stages of TOPSIS method
13	Theoretical	ELECTRE: Solution stages of ELECTRE method
14	Theoretical	VIKOR: Solution steps of VIKOR technique
15	Theoretical	Applications
16	Final Exam	Finals

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	13	0	3	39
Individual Work	13	0	2	26
Midterm Examination	1	25	1	26

Final Examination	1	35	1	36
			Total Workload (Hours)	127
		[Total Workload (Hours) / 25*] = **ECTS**		5

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	Will be able to explain decision making environments and decision process
2	Explain the decision tree and BAYES theorem
3	Explain AHP and ANP decision theories
4	Explain TOPSİS decision theory
5	Explain ELECTRE decision theory and VIKOR decision model

Programme Outcomes *(Logistics Management Interdisciplinary Master)*

1	Being able to contribute to the institution the participant works for and the logistics sector by the use of the knowledge and abilities gained during the education period; and manage change in the institution and the sector;
2	Reaching a competency about contemporary business and technology applications in the area of logistics and supply chain management and analysis and strategy development methods;
3	Being able to create opportunities by combining supply chain management with information technologies and innovative processes by the use of the interdisciplinary courses the participants take;
4	Having the ability to develop creative solutions by working on global logistics and supply chain subjects and realizing these by the use of their project management knowledge;
5	Having the knowledge, abilities and capabilities required for effective logistics and supply chain management by the use of a problem and case analysis based learning;
6	Being able to examine logistics and supply chain processes with the management science viewpoint, analyze related concepts and ideas by scientific methods;
7	If continuing to work in the academia, having the necessary information on logistics applications; if continuing to work in the sector, having the necessary knowledge on conceptual subjects;
8	Being able to specify appropriate research questions about his/her research area, conduct an effective research with the use of necessary methods and apply the research outcomes in the sector or the academia;
9	Being able to follow the changes and developments in the sector the participant works in, in order to keep his/her personal and professional competence updated and develop himself/herself when necessary;
10	Have the necessary capabilities to pursue doctoral studies in national and foreign institutions

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	4	4	5	4
P2	3	2	5	5	5
P3	1	3	4	1	4
P4	3	4	4	3	
P5	4	3	3	3	5
P6	4	4	4	4	4
P7	1	3	5	5	3
P8	3	4	4	4	5
P9	2	5	3	5	4
P10	5	5	3	1	3