Content

Course Code	Course Name	Semester	Theory	Practice	Lab	Credit	ECTS
LFM 533	Multi-Criteria Decision Making and Its Applications in Logistics	1	3	0	0	3	6

Prerequisites	
Admission Requirements	

Language of Instruction	English
Course Type	Elective
Course Level	Masters Degree
Objective	The purpose of this course is to provide the students an introduction to the concept of Multi-Criteria Decision Making (MCDM) and its general areas of application and its applications in logistics by showing the basics and methods.
Content	Week 1. MCDM – A General Overview, Basic Definitions, Normalization Classification of MCDM Methods Week 2. Quantitative/Qualitative Data, Attribute Generation and Weighting Week 3. Quantification of Qualitative Data Non Compensatory MCDM Methods - I Week 4. Non Compensatory MCDM Methods - II, Scoring Methods SAW, WPM Week 5 Some well known MCDM methods – AHP, TOPSIS Week 6. Some well known MCDM methods – ELECTRE, OCRA Week 7. Some well known MCDM Methods – GRA, MOORA, DEA Week 8. MIDTERM Week 9. Some well known MCDM Methods – DEMATEL, ANP Week 10. Group Decision Making, Social Choice Functions Week 11. General Overview of Fuzzy Set Theory Week 12. General overview of Fuzzy MCDM Week 13. Project Presentations Week 14. Project Presentations
References	K. Paul YOON, Ching-Lai HWANG, Multiple Attribute Decision Making – An Introduction, Sage Publications, California, USA, 1995. Ching-Lai HWANG, Ming-Jeng Lin, Group Decision Making under Multiple Criteria, Springer Verlag, New York, USA, 1987. Enrique BALLESTERO, Carlos ROMERO, Multiple Criteria Decision Making and its Applications to Economic Problems, Kluwer Academic Publishers, Boston,USA, 1998. Thomas L. SAATY, Müjgan S. ÖZDEMİR, A Dictionary of Decisions with Dependence and Feedback Based on the Analytic Network Process, RWS Publications, Pittsburgh, USA, 2005.

Theory Topics

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