Course Syllabus

Code - Course Title	**VBA413 - Multi-Criteria Decision Making**
Course Type	VII. SEMESTER
Laboratory + Practice	2+0
ECTS	**4.0**
Language of Instruction	İngilizce
Course Type	Area Elective Courses
Course Instructor(s)	DR. ÖĞR. ÜYESİ ÖNDER DORAK

Mode of Delivery	Face-to-face

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 1		Decision Matrices: Objective criteria weighting	
Week - 2		Mathematical data normalization techniques	
Week - 3		Score aggregation methodologies	
Week - 4		Core Methods: Implementing AHP frameworks	
Week - 5		Implementing ANP frameworks	
Week - 6		Ranking methodologies: PROMETHEE	
Week - 7		Ranking methodologies: ELECTRE	
Week - 8		Applications in Analytics: Data-driven vendor selection	
Week - 9		Optimizing resource allocation across departments	
Week - 10		Prioritizing strategic institutional projects	
Week - 11		Evaluating diverse public data scenarios	
Week - 12		Advanced MCDM: Handling fuzzy decision-making	
Week - 13		Integrating MCDM with geographic information systems	
Week - 14		Conducting thorough sensitivity analysis	

Learning Outcomes

#	Learning Outcome
1	Execute rigorous objective mathematical data normalization techniques
2	Implement established PROMETHEE, ELECTRE, and AHP methodologies

Learning Outcomes

#	Learning Outcome
3	Mathematically optimize resource allocation algorithms across departments
4	Conduct thorough sensitivity analysis handling fuzzy uncertain inputs

Sustainable Development Goals

No content has been provided.

Course Theme

No content has been provided.

AKTS Workload

Activity	Duration (Hour)	Count	Workload
Teorik Derse Katılım	0	0	0
Sınıf Dışı Çalışma (Ön Hazırlık & Pekiştirme Amaçlı)	0	0	0
Ödevler	0	0	0
Proje - Rapor - Sunum Hazırlama	0	0	0
Ara Sınav Hazırlığı (sınav süresi dahil)	0	0	0
Final Sınavı Hazırlığı (sınav süresi dahil)	0	0	0
Uygulama (Laboratuvar, Müzik/Enstrüman Uygulaması, Atölye/Saha Çalışması vb.)	0	0	0
Staj Uygulaması	0	0	0
		Calculated ECTS	**0**

Assessment Method and Passing Requirements

No content has been provided.