Course Syllabus

Code - Course Title	**VBA309 - Game Theory**
Course Type	V. 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		Strategic Games: Identifying Nash equilibrium	
Week - 2		Analyzing dominant and strictly dominated strategies	
Week - 3		Mathematically modeling zero-sum games	
Week - 4		Modeling complex non-zero-sum games	
Week - 5		Extensive Form Games: Mapping sequential moves	
Week - 6		Applying principles of backward induction	
Week - 7		Achieving subgame perfect equilibrium	
Week - 8		Handling games of imperfect and incomplete information	
Week - 9		Applications: Mathematics of auction theory	
Week - 10		Optimal bidding strategies	
Week - 11		Modeling intricate bargaining tactics	
Week - 12		Biological roots of evolutionary game theory	
Week - 13		Behavioral Game Theory: Systematic deviations	
Week - 14		Incorporating psychological factors into strategic modeling	

Learning Outcomes

#	Learning Outcome
1	Identify mathematically formulated Nash equilibriums
2	Map extensive form games utilizing backward induction logic

Learning Outcomes

#	Learning Outcome
3	Apply the mathematics of auction theory and bargaining
4	Analyze behavioral deviations from strict rationality

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.