Course Syllabus

Code - Course Title	**VBA405 - Econometrics and Causal Inference**
Course Type	VII. SEMESTER
Laboratory + Practice	3+0
ECTS	**5.0**
Language of Instruction	İngilizce
Course Type	Required 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		Econometric Modeling: Verifying OLS assumptions	
Week - 2		Detecting and correcting heteroskedasticity	
Week - 3		Modeling time-series autocorrelation	
Week - 4		Panel data analysis fundamentals	
Week - 5		Causal Frameworks: Defining potential outcomes	
Week - 6		Constructing directed acyclic graphs (DAGs)	
Week - 7		Identifying and controlling for confounding variables	
Week - 8		Advanced Causal Methods: Applying instrumental variables	
Week - 9		Implementing difference-in-differences models	
Week - 10		Executing regression discontinuity designs	
Week - 11		Policy Evaluation: Designing randomized controlled trials (RCTs)	
Week - 12		Propensity score matching techniques	
Week - 13		Estimating causal effects in observational datasets	
Week - 14		Applied econometric policy analysis	

Learning Outcomes

#	Learning Outcome
1	Correct heteroskedasticity and verify OLS assumptions
2	Construct directed acyclic graphs for confounder control

Learning Outcomes

#	Learning Outcome
3	Apply instrumental variables and difference-in-differences
4	Estimate causal effects in observational public datasets

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.