Course Syllabus

Code - Course Title	**SAY518 - Time Series Analysis**
Course Type	I. SEMESTER
Laboratory + Practice	3+0
ECTS	**6.0**
Language of Instruction	Türkçe
Course Type	Elective Courses
Course Instructor(s)	PROF. DR. HÜSEYİN GÜRBÜZ

Mode of Delivery	The mode of delivery of this course is Face to face
Place of Delivery	On Campus
Used Educational Platforms	Face-to-face
Prerequisites	There are no prerequisites or corequisites for this course.
Courses Recomended	It is recommended to take a statistics course for this course.
Recommended Resources	Mustafa Sevültekin and Mehmet Nargeleçekenler (2005), Time Series Analysis, Nobel Publishing, Ankara.; Yılmaz Akdi (2003), Time Series Analysis, Bıçaklar Kitabevi, Ankara.; Aziz Kutlar (2007), Applied Econometrics, Nobel Publishing, Istanbul.; Damodar N. Gujarati (1999), Basic Econometrics, Literatür Publishing, Istanbul.; Mustafa Sevültekin (2013), Introduction to Econometrics, Dora Publishing, Bursa.; Şahin Akkaya and M. Vedat Pazarlıoğlu (1995), Econometrics I- II, Izmir.; Aziz Kutlar (2005), Applied Econometrics, Nobel Publishing, Istanbul.
Work Placement	N/A
Aims of the Course	The objective of the Time Series Analysis course is to provide students with the skills to examine the statistical properties of data observed over time, model time-dependent changes and dynamic relationships, and perform analysis and forecasting using appropriate time series methods. In this context, it is aimed that students acquire theoretical and practical knowledge regarding stationarity, trend, seasonality, autocorrelation, time series models, and forecasting methods; that they be able to construct and evaluate models such as AR, MA, ARMA, ARIMA, and seasonal ARIMA; and that they be able to utilize the obtained results in scientific research and decision-making processes.

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 1			
Week - 2			
Week - 3			
Week - 4			
Week - 5			
Week - 6			

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 7			
Week - 8			
Week - 9			
Week - 10			
Week - 11			
Week - 12			
Week - 13			
Week - 14			

Learning Outcomes

#	Learning Outcome
1	
2	
3	
4	

Sustainable Development Goals

✓ Quality Education

Course Theme

✓ Economics, Finance and Management ✓ Data Science

AKTS Workload

Activity	Duration (Hour)	Count	Workload
Teorik Derse Katılım	0.00	0	0
Sınıf Dışı Çalışma (Ön Hazırlık & Pekiştirme Amaçlı)	0.00	0	0
Ödevler	0.00	0	0
Proje - Rapor - Sunum Hazırlama	0.00	0	0
Ara Sınav Hazırlığı (sınav süresi dahil)	0.00	0	0
Final Sınavı Hazırlığı (sınav süresi dahil)	0.00	0	0
Uygulama (Laboratuvar, Müzik/Enstrüman Uygulaması, Atölye/Saha Çalışması vb.)	0.00	0	0
Staj Uygulaması	0.00	0	0

AKTS Workload

Activity	Duration (Hour)	Count	Workload
		Calculated ECTS	**0.0**

Assessment Method and Passing Requirements

✓ Project ✓ Homework

Assessment Method and Passing Requirements	Quamtity	Percentage (%)
1.Midterm Exam	1	40
Final Exam	1	60
	Sum (%)	**100**

Community Service Activity

External stakeholders collaborated with in community service activities within the course:
✓ Educational institutions ✓ Other universities / academic institutions

Target audience of the community service activities carried out within the course:
✓ Local community / general public ✓ Public sector employees ✓ Private sector / industry employees ✓ Students ✓ Educators

Type of community contribution arising from the course:
✓ Awareness raising ✓ Education and knowledge sharing ✓ Skills development / capacity building ✓ Contribution to policy development ✓ Research and knowledge production