



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Time Series Analysis							
Course Code		EFN571		Couse Level		Second Cycle (Master's Degree)			
ECTS Credit	5	Workload	125 (Hours)	Theory	3	Practice	0	Laboratory	0
Objectives of the Course		The aim of the course is to give students the ability to understand, apply and interpret time series techniques commonly used in economics and finance.							
Course Content		Difference Equations, Stability Analysis, Autocorrelation and Partial Autocorrelation Functions, ARIMA Models, ARCH-GARCH Models, Multivariate Time Series Models							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Demonstration					
Name of Lecturer(s)		Assoc. Prof. Şahin BULUT							

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

Recommended or Required Reading

1	Chang, A. C. ve K. Wanwright, 2005, Matematiksel İktisadın Temel Yöntemleri, McGraw-Hill, International Eidton
2	M. Sevüktekin, M. Nargeleşkenler, "Econometric Time Series Analysis", 3. Baskı, Nobel Yayın Dağıtım

Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction to Difference Equations, First Order Difference Equations
2	Theoretical	Solution of Two and Higher Degree Equations and Balance Analysis
3	Theoretical	Trend, Unit Root and Stationarity in Time Series
4	Theoretical	Unit Root Tests, Structural Breaks, Trend Elimination
5	Theoretical	Correlation, Autocorrelation Functions
6	Theoretical	Partial Autocorrelation Functions
7	Theoretical	Box-Jenkins and Other Model Determination Methods
8	Intermediate Exam	Midterm
9	Theoretical	ARIMA Models
10	Theoretical	Model Estimation Methods
11	Theoretical	Hypothesis Testing
12	Theoretical	Introduction to Variability Models
13	Theoretical	ARCH-GARCH Models and Estimation Methods
14	Theoretical	Multivariate Time Series
15	Theoretical	Hypothesis Tests, Impact-Response Functions
16	Final Exam	Final Exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	2	3	70
Individual Work	7	2	2	28
Midterm Examination	1	10	1	11
Final Examination	1	15	1	16
Total Workload (Hours)				125
[Total Workload (Hours) / 25*] = ECTS				5

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	To be able to analyze economic and financial data.
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2	To be able to determine the most appropriate model for the data.
3	It is provided to predict by establishing appropriate time series models.
4	Hypothesis Test Information Regarding Parameters
5	To be able to interpret the estimated models

Programme Outcomes (Economics and Finance Interdisciplinary Master)

1	To be able to use the basic concepts in the field of economics and finance correctly
2	To be able to comprehend philosophical, social, historical and psychological principles influencing economics and finance
3	To be able to analyze economical and financial events theoretically and empirically
4	To be able to evaluate any economical and financial problem in accordance with scientific principles
5	To be able to prepare solutions for an economical or financial problem cooperatively in accordance with principles and criteria
6	To be able to follow contemporary implementations, and national and international academic publications
7	To be able to prioritize scientific methods and ethical principles in economics and finance while considering and implementing field specific professional issues
8	To be willing to do scientific research in the field of economics and finance
9	To be able to create value for economics and finance profession as a professional identity

Contribution of Learning Outcomes to Programme Outcomes 1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High

	L1	L2	L3	L4	L5
P1	3	4	4	3	4
P2	4	3	3	4	5
P3	3	4	4	4	3
P4	4	3	4	3	4
P5	5	3	4	3	3
P6	4	4	3	4	3
P7	3	4	4	3	4
P8	3	3	3	4	5
P9	4	3	4	3	4

