AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title		Financial Econometrics							
Course Code		FEK510		Couse Level		Second Cycle (Master's Degree)			
ECTS Credit	5	Workload	125 *(Hours)*	Theory	3	Practice	0	Laboratory	0
Objectives of the Course		This course introduces the student to a wide range of techniques in financial econometrics, and their practical applications. Prior knowledge of statistics and econometrics is very useful, but it isn't necessary. Each student is required to hand in a class project that applies class material to real financial data. Accordingly, one of the aims of the course is to give students the skills necessary to pursue independent research projects, and the backgrounds to be able to extend their knowledge to additional topics of interest without much difficulty.							
Course Content		The course will mostly be based on Time Series econometric methods. The course starts by reviewing basic tools of statistics and econometrics, and makes brief introductions to regression analysis, least squares methods, and some extensions of these topics. Then, numerous time series methods are discussed, including the estimation and forecasting of ARMA and ARIMA models, models of conditional heteroscedasticity (ARCH/GARCH), vector autoregressions, and cointegration. Each topic is discussed along with its applications in finance, keeping in mind the peculiarities of financial data and methods that are designed to work with such data.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Demonstration, Project Based Study					
Name of Lecturer(s)									

Assessment Methods and Criteria

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

Recommended or Required Reading

1	Chris Brooks, Introductory Econometrics for Finance (Secon Edition), Cambridge University Press. Supplementary text: Svetlozar T. Rachev, Stefan Mittnik, Frank J. Fabozzi, Sergio M. Focardi, and Teo Jasic
2	Financial Econometrics: From Basics to Advanced Modeling Techniques (John Wiley & Sons, Inc.)

Week	Weekly Detailed Course Contents	
1	Theoretical	Foundations: A Review of Probability and Statistics
2	Theoretical	Introduction to Regression Analysis
3	Theoretical	Topics in Regression Analysis
4	Theoretical	Foundations of Time Series Econometrics
5	Theoretical	ARMA Modeling
6	Theoretical	ARMA Modeling
7	Intermediate Exam	Midterm Exam
8	Theoretical	Nonstationarity, Unit Roots, and ARIMA Models
9	Theoretical	Forecasting with Time Series
10	Theoretical	Autoregressive Conditional Heteroscedasticity: ARCH and GARCH
11	Theoretical	Autoregressive Conditional Heteroscedasticity: ARCH and GARCH
12	Theoretical	Stationary Vector Models: VAR
13	Practice	Stationary Vector Models:VAR
14	Theoretical	Cointegration and Common Trends
15	Practice	Cointegration and Common Trends
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	Developing and deepening the knowledge of financial econometrics to an expert level, building on the competencies of the undergraduate education
2	Comprehending the interaction between related disciplines and financial econometrics.
3	To be able to think analytically to identify problems in financial econometrics and to be able to make policy recommendations in economics and finance based on scientific analysis of issues and problems.
4	To be able to apply the advanced level knowledge acquired in financial econometrics
5	Creating new knowledge by combining the knowledge of financial econometrics with the knowledge coming from other disciplines and also be able to solve problems which requires expert knowledge by applying scientific methods
6	To be able to use the skills of modelling, empirical analysis and formulating policy options that are developed for financial econometrics, in interdisciplinary contexts.

Programme Outcomes *(Econometrics Master)*

1	Understanding the concept of econometric
2	Ability to estimate econometric models
3	Test to the estimated reliability of the econometric model
4	Learning time series analysis
5	Recognition of financial assets and analysis that estimates the decisions of economic units
6	Be able to use econometric methods developed specifically for analysis of financial data
7	To be able to use computer programs needed in the field financial economics as well as information and communication technologies in advanced levels
8	Provision of the information that will be base for the econometric applications on money theories, theories of international trade and finance
9	Considering a scientific research,to be able to make a profound literature research, analysis,estimations and reporting findings in a scientific work

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

	L1	L2	L3	L4	L5	L6
P1	5	5	4	4	5	4
P2	4	3	4	4	4	4
P3	3	4	4	3	4	3
P4	5	3	3	5	3	5
P5	3	4	4	5	5	5
P6	5	5	3	5	5	5
P7	5	5	4	4	4	4
P8	5	3	3	3	3	3
P9	3	4	4	4	4	4