M.A. PROGRAM IN BUSINESS MANAGEMENT (WITH THESIS)
COURSE SYLLABUS FORM

Course Details				
Code	**Academic Year**			**Semester**
BM068	1			Elective
Title	**T**	**A**	**L**	**ECTS**
Econometrics	3	0	0	6

Language	English					
Level	**Undergraduate**		**Graduate**	**X**	**Postgraduate**	
Department / Program	Business Management					
Forms of Teaching and Learning	Face to face					
Course Type	**Compulsory**		**Elective**	**X**		
Objectives	The aim of this course is to enable students to gain basic knowledge about econometrics and gain the ability to build various econometric models.					
Content	Definition of econometrics, econometric model concept, statistical estimation theory, simple linear regression analysis, simple non-linear regression analysis, linearization in non-linear relationships, multiple regression analysis and assumptions, dummy variables, determination of deviations from assumptions of regression analysis and ways of solution, introduction to time series analysis, decomposition of time series, smoothing methods, autoregressive models, moving average models, compound autoregressive moving average models, ARCH / GARCH models, ARMAX models, Granger causality analysis, VAR models, cointegration analysis, panel data analysis					
Prerequisites	-					
Coordinator	Asst. Prof. Dr. Mehmet Hakan ÖZDEMİR					
Lecturer(s)	-					
Assistant(s)	-					
Work Placement	-					

Recommended or Required Reading	
Books / Lecture Notes	- Tarı, R., Ekonometri, 2018, Umuttepe Yayınları - Orhunbilge, N., Uygulamalı Regresyon ve Korelasyon Analizi, 2002, İstanbul Üniversitesi Yayınları - Orhunbilge, N., Zaman Serileri Analizi Tahmin ve Fiyat İndeksleri, 1999, İstanbul Üniversitesi Yayınları
Other Sources	-

Additional Course Material	
Documents	-
Assignments	-
Exams	-

Course Composition

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Mathematics und Basic Sciences		50%
Engineering		%
Engineering Design		%
Social Sciences		20%
Educational Sciences		%
Natural Sciences		%
Health Sciences		%
Expert Knowledge		30%

Assessment

Activity	Count	Percentage (%)
Midterm Exam	1	40
Quiz		
Assignments		
Attendance		
Recitations		
Projects		
Final Exam	1	60
	Total	**100**

ECTS Points and Work Load

Activity	Count	Duration	Work Load (Hours)
Lectures	14	3	42
Self-Study	14	3	42
Assignments			
Presentation / Seminar Preparation			
Midterm Exam	1	48	48
Recitations			
Laboratory			
Projects			
Final Exam	1	48	48
		Total Work Load	**180**
		ECTS Points (Total Work Load / Hour)	**6**

Learning Outcomes

1	Students can define the concept of econometric model.
2	Students can make regression analysis.
3	Students can decompose time series into its components.

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4	Students can establish autoregressive, moving average or compound autoregressive moving average models.
5	Students can build ARCH / GARCH models.
6	Students can build ARMAX models.
7	Students can conduct Granger causality analysis.
8	Students can conduct cointegration analysis.
9	Students can conduct panel data analysis.
Weekly Content	
1	Definition of econometrics, econometric model concept, statistical estimation theory
2	Simple linear regression analysis, Simple non-linear regression analysis, linearization in non-linear relationships
3	Multiple regression analysis and assumptions
4	Dummy variables
5	Determination of deviations from assumptions of regression analysis and ways of solution
6	Introduction to time series analysis, decomposition of time series, smoothing methods
7	Autoregressive models, moving average models, compound autoregressive moving average models
8	ARCH / GARCH models
9	Mid-term exam
10	ARMAX models
11	Granger causality analysis
12	VAR models
13	Cointegration analysis
14	Panel data analysis
15	Panel data analysis

Contribution of Learning Outcomes to Program Objectives (1-5)

	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13
1	4	5	5	5	5	4	5	4	4	5	5	5	5
2	4	5	5	5	5	4	5	4	4	5	5	5	5
3	4	5	5	5	5	4	5	4	4	5	5	5	5
4	4	5	5	5	5	4	5	4	4	5	5	5	5
5	4	5	5	5	5	4	5	4	4	5	5	5	5
6	4	5	5	5	5	4	5	4	4	5	5	5	5
7	4	5	5	5	5	4	5	4	4	5	5	5	5
8	4	5	5	5	5	4	5	4	4	5	5	5	5
9	4	5	5	5	5	4	5	4	4	5	5	5	5
Contribution Level	1: Low 2: Low-intermediate 3: Intermediate 4: High 5: Very High												

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Date of Compilation:	04.06.2020