ÇANKAYA UNIVERSITY
Faculty of Economics and Administrative Sciences
Course Definition Form

Part I. Basic Course Information

Department Name	ECONOMICS				**Dept. Numeric Code**	3	1
Course Code	E C O N 3 1 2	**Number of Weekly Lecture Hours**	3	**Number of Weekly Lab/Tutorial Hours**	2	**Number of Credit Hours**	4
Course Web Site	http:// econ312.cankaya.edu.tr				**ECTS Credit**	0	6

Course Name and Other Course Information *This information will appear in the printed catalogs and on the web online catalog.*	
English Name	ECONOMETRICS II
Turkish Name	EKONOMETRİ II
Mode of Delivery	Face to face
Language of Instruction	English

Course Description
Provide a brief overview of what is covered during the semester. This information will appear in the printed catalogs and on the web online catalog. Maximum 60 words.

ECON 312 is the second introductory econometrics course and covers the following topics; Heteroscedasticity, Autocorrelation, two stage least squares method, weighted least squares, Univariate time series models, unit roots, co-integration, error correction model, Simultaneous equation models and instrumental variables.

Prerequisites (if any) *Give course codes and check all that are applicable.*	1st: 3 1 3 1	2nd:	3rd:	4th:
	☐ Consent of the Instructor	☐ Senior Standing	☐ Give others, if any.	
Co-requisites (if any)	1st:	2nd:	3rd:	4th:
Course Type *Check all that are applicable*	☒ Must course for dept.	☐ Must course for other dept.(s)	☐ Elective course for dept.	☐ Elective course for other dept.(s)

Part II. Detailed Course Information

Course Objectives
Maximum 100 words.

Students to be able; to conduct diagnostics tests for evidence of heteroscedasticity & autocorrelation: to solve heteroscedasticity & autocorrelation problems; to have deep understanding of two stage and weighted least squares estimation of regression models; to test for unit roots; to understand the concept of stationarity, cointegration and spurious regressions; estimate and evaluate ECM and ARDL models; to understand the use of simultaneous equations models in economics; to uncover under-over-just identified models; to discuss the role instrumental variables and estimation in econometric models.

Learning Outcomes
Explain the learning outcomes of the course. Maximum 10 items.

Upon completion of this course, students should be able to:

1. explain consequences of autocorrelation and heteroscedasticity problems
2. conduct tests for detection of these problems;
3. remove problems via transformations and alternative estimation methods.
4. to estimate and analyze univariate time series models
5 to test for unit roots and cointegration,
6 estimate error correction models; interpret the implications both in the long run and short run
7 to examine simultaneous equations models and discuss their use in economic analysis
8 to make distinction between reduced form equation and structural equation
9 to detect whether a simultaneous equation is over, under or just identified.
10 to use instrumental variables in simultaneous equation models

Textbook(s)
List the textbook(s), if any, and other related main course material.

Author(s)	Title	Publisher	Publication Year	ISBN
Jeffrey M. Wooldridge	Introductory Econometrics	Cengage Learning	2016	978-1-305-27010-7
Christopher Dougherty	Introduction to Econometrics	Oxford Press	2016	978-0-19-967682-8
Judge-Hill-Griffith	Principles of Econometrics			

Reference Books
List, if any, other reference books to be used as supplementary material.

Author(s)	Title	Publisher	Publication Year	ISBN

Teaching Policy
Explain how you will organize the course (lectures, laboratories, tutorials, studio work, seminars, etc.)

Theory: 2 lectures per week

Laboratory/Studio Work
Give the number of laboratory/studio hours required per week, if any, to do supervised laboratory/studio work and list the names of the laboratories/studios in which these sessions will be conducted.

1 lecture per week

Computer Usage
Briefly describe the computer usage and the hardware/software requirements for the course.

Assignments: Estimation of empirical economic models with real life data. Use of SPSS (Statistical Package for Social Scientists) and Eviews (Econometrics Views) is required

Course Outline
List the weekly topics to be covered.

Week	Topic(s)
1	Heteroscedasticity: Introduction and Consequences
2	Heteroscedasticity: testing and remedies
3	Heteroscedasticity: remedies
4	Autocorrelation: Introduction and Consequences
5	Autocorrelation: Testing and Consequences
6	Univariate Time Series Model: Autoregressive model
7	Unit Roots, Stationarity, Cointegration, Spurious regression
8	Unit Roots, Stationarity, Cointegration, Spurious regression
9	Error Correction Model (ECM): Estimation-Interpretation
10	Autoregressive Distributed Lag Models(ARDL)
11	ARDL Versus ECM model
12	Simultaneous Equations Models and Identification Problems
13	Structural and Reduced Form Equations
14	Autocorrelation: Introduction and Consequences
14	Instrumental Variables Estimation

Grading Policy
List the assessment tools and their percentages that may give an idea about their relative importance to the end-of-semester grade.

Assessment Tool	Quantity	Percentage	Assessment Tool	Quantity	Percentage	Assessment Tool	Quantity	Percentage
Mid Term Exam.	1	30%						
Final Exam.	1	50%						
Assignment	5	20%						

ECTS Workload
List all the activities considered under the ECTS.

Activity	Quantity	Duration (hours)	Total Workload (hours)
Attending Lectures (*weekly basis*)	14	3	42
Attending Labs/Recitations (*weekly basis*)	14	2	28
Compilation and finalization of course/lecture notes (*weekly basis*)	14	1	14
Collection and selection of relevant material (*once*)	1	1	1
Self study of relevant material (*weekly basis*)	14	2	28

Take-home assignments	5	2	10
Preparation for quizzes			
Preparation for mid-term exams (*including the duration of the exams*)	1	17	15
Preparation of term paper/case-study report (*including oral presentation*)			
Preparation of term project/field study report (*including oral presentation*)			
Preparation for final exam (*including the duration of the exam*)	1	18	18
TOTAL WORKLOAD / 25			156/25
ECTS Credit			**6**

Program Qualifications vs. Learning Outcomes *Consider the program qualifications given below as determined in terms of learning outcomes and acquisition of capabilities for all the courses in the curriculum. Look at the learning outcomes of this course given above. Relate these two using the Likert Scale by marking with X in one of the five choices at the right.*

No	Program Qualifications	Contribution				
		0	1	2	3	4
1	To know the fundamental concepts in economics and associated social sciences, and relate these concepts to each other.					
2	To know the quantitative and qualitative methods and computer skills necessary for testing hypotheses derived from economic theories for the purpose of contributing towards the solution of economic problems.					**X**
3	To acquire the necessary knowledge for gathering and processing data, and for building up the scientific research capacity to guide economic policy.					**X**
4	To specialize in some of the sub-disciplines of economics, and to gain interdisciplinary analytical skills by making connections between those sub-disciplines and other social sciences.					**X**
5	To have the ability to question, interpret, and analyze the findings of economic studies.					**X**
6	To develop the ability to present in writing as a report and verbally as a presentation the knowledge acquired through education.					
7	To be able to work in teams, and when necessary to rise up to the challenge individually.				**X**	
8	To gain life-long learning and critical-thinking skills.				**X**	
9	To be able to assess one's need for advanced study and to make plans accordingly by using the critical and analytical thinking skills gained during undergraduate studies.				**X**	
10	To gain the ability to use a language at least at the Level B1 of the European Language Portfolio to follow economic news and developments, and to communicate with colleagues.					
11	To maintain scientific, social, and ethical standards when collecting, interpreting, and disseminating economic information, and in application of economic ideas.					**X**
12	To be conscious of social and environmental needs.					
13	To develop an open-minded attitude towards new ideas and developments.				**X**	
14	To relate the knowledge gained through education to the cultural and historical characteristics of the society.					

Scale for contribution to a qualification: **0**-none, **1**-little, **2**-moderate, **3**-considerable, **4**-highest