

ANKARA YILDIRIM BEYAZIT UNIVERSITY – DEPARTMENT OF ...ECONOMICS.....
COURSE SYLLABUS

Course Code	Course Title	Course Type	ECTS Credits	Prerequisite Information	Date of Preparation
ECON 203	Introdcution to Probability and Statistics I	Compulsory	6		22.09.2025
Instructor of the Course & E-Mail Address	Fatma Özgü Serttaş & foserttas@aybu.edu.tr				
Office Hours & Office Room	Mondays 11.00-13.00, B315 Esenboga				
Course Content and Objectives	<p>This is a course that deals with numerical data, collection of data, tabulation, and interpretation of categorical and numerical data. In this course, students will see some basic and simple forms of mathematical analysis that use different quantitative models to produce a set of experimental data or studies of real life. In this course, students will learn about population, sample, parameter, statistic (singular), and some basic vocabulary of statistics and basic methods of statistical analysis. While dealing with statistics, students will apply probability (probability theory) to draw conclusions from data. So some basic probability knowledge will also be given in this course.</p> <p>Since statistics is primarily an applied branch of mathematics, which tries to make sense of observations in the real world, students are going to learn how to use a computer to do basic statistical analysis. Students are going to use the programming language R in this class. R is a free statistical software and is available to download from the web.</p>				
Textbook(s)	Newbold P., Carlson W., & Thorne B., <i>Statistics for Business and Economics</i> , Pearson, Tenth Global Edition.				
Teaching Methods and Techniques	In-class teaching, homeworks, class discussions and lab discussions using R software. Course grade will be based on quizzes, a midterm exam and a comprehensive final exam.				
Course Learning Outcomes	1	To introduce students with data analysis.			
	2	To learn about collection of data, tabulation, and interpretation of categorical and numerical data.			
	3	To learn about simple forms of mathematical analysis that use different quantitative models to produce a set of experimental data or studies of real life.			
	4	To distinguish between population and sample topics; notations and jargon.			
	5	To deal with the observations in the real world, students will learn how to use a computer to do basic statistical analysis.			
Program Outcomes Contributed by the Course	Program Outcomes (PO)				
	1	Possesses knowledge of various practical approaches in the field of statistics, supported by current textbooks, tools, and statistical software R.			
	2	Possesses the ability to interpret and report some simple statistical research results.			
	3	Possesses the ability to do basic statistical inference.			

Contribution of the Course to Field Instruction	The students will be equipped with different practical applications supported by textbooks containing up-to-date information in the field of probability and statistics and basic data analysis.		
Topics Covered in the Course	1. Week	Course and syllabus introduction.	
	2. Week	Decision Making in an Uncertain Environment	
	3. Week	Classification of Variables	
	4. Week	Graphs to Describe Categorical Variables	
	5. Week	Graphs to Describe Numerical Variables	
	6. Week	Measures of Central Tendency and Location	
	7. Week	Measures of Variability	
	8. Week	Midterm Week	
	9. Week	Chebyshev's Theorem and Empirical Rule	
	10. Week	Random Experiment, Outcomes and Events	
	11. Week	Probability and Its Postulates	
	12. Week	Probability Rules	
	13. Week	Bivariate Probabilities	
	14. Week	Bayes' Theorem	
	15. Week	Summary and Wrap-up	
Course Evaluation Criteria	In-Term Studies	Quantity	Percentage %
	Mid-terms	1	%34
	Quizzes	2	%23
	Assignments		%
	Attendance		%
	Practice		%
	Project		%
	Final examination	1	%43
	Total		100%
Disability Policy	<p>If you have a documented disability (e.g., visual, hearing, or physical impairment, etc.) that may influence your performance in this course, it is recommended to meet with the Engelsiz AYBU (https://aybu.edu.tr/engelsiz/content_list-327-yildirim-beyazit-universitesi-engelsiz-universite-birimi-yonergesi.html) to arrange for reasonable conditions (such as accommodation, etc.) to ensure an equitable opportunity to meet all the requirements of this course. You may also contact the local authority of the Faculty of Political Sciences. You should communicate your needs to the course instructor as soon as possible to ensure that any course needs concerning exams, lecture materials, etc. are met.</p>		