

**ANKARA YILDIRIM BEYAZIT UNIVERSITY – DEPARTMENT OF ECONOMICS
ECON143 CALCULUS-I COURSE SYLLABUS**

Course Code	Course Title	Course Type	ECTS Credits	Prerequisite Information	Date of Preparation
ECON 143	Calculus-I	Compulsory	5	-	01.09.2025
Instructor of the Course & E-Mail Address	Asst. Dr. Selen Ozcelik & selenozcelik@aybu.edu.tr				
Office Hours & Office Room	Wednesday, 11.00-13.00, B309				
Course Content and Objectives	This is the first part of a two-semester sequence of Calculus courses. The first part, Calculus-I course introduces students to the use of functions, graphs, and derivatives in solving problems in business and economics.				
Textbook(s)	Calculus for Business, Economics, Life Sciences, and Social Sciences, 14th edition by Raymond A. Barnett, Michael R. Ziegler, Karl E. Byleen and Christopher J. Stocker				
Teaching Methods and Techniques	In this course, in-class example solving will be used as a teaching method.				
Course Learning Outcomes	1	Ability to understand the mathematical background of the concepts and theories used in micro and macro economics disciplines			
	2				
	3				
	4				
	5				
	6				
	7				
Program Outcomes Contributed by the Course	Program Outcomes (PO)				
	1	Ability to apply mathematical analysis tools into economics field.			
Contribution of the Course to Field Instruction	The aim of this course is to equip students with math tools for more advanced economics courses in following years.				

Topics Covered in the Course	1. Week	Introduction	
	2. Week	Algebra Review	
	3. Week	Functions and Graphs-I	
	4. Week	Functions and Graphs-II	
	5. Week	Functions and Graphs-III	
	6. Week	Limits and the Derivative-I	
	7. Week	Limits and the Derivative-II	
	8. Week	Midterm Week	
	9. Week	Limits and the Derivative-III	
	10. Week	Additional Derivative Topics-I	
	11. Week	Additional Derivative Topics-II	
	12. Week	Additional Derivative Topics-III	
	13. Week	Graphing and Optimization-I	
	14. Week	Graphing and Optimization-II	
	15. Week	Graphing and Optimization-III	
Course Evaluation Criteria	In-Term Studies	Quantity	Percentage %
	Mid-terms	1	%40
	Quizzes		%
	Assignments		%
	Attendance		%
	Practice		%
	Project		%
	Final examination	1	%60
	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>		