Department of Science Education / Department of Mathematics and Science Education /

Course Code	Course Name	Teorical	Practice	Laboratory	Credits	ECTS
FBEAE 105	General Mathematics 1	2.00	0.00	0.00	2.00	2.00

Course Detail

Course Language	: Turkish
Qualification Degree	: Bachelor
Course Type	: Compulsory
Preconditions	: Not
Objectives of the Course	: This course aims to teach the concepts and applications of limit, continuity, derivative, applications of derivative and graph drawings.
Course Contents	: This course covers the topics of limits, continuity and derivatives of functions.
Recommended or Required Reading	: 1. Zafer Yayınları Matematik 3. seri. 2. Mustafa Balcı, Genel Matematik 1, Palme yayıncılık 3. Checkered Notebook
Planned Learning Activities and Teaching Methods	: Lecture; Discussion; Question and Answer;
Recommended Optional Programme Components	: It is not available.
Course Instructors	: Prof. Dr. Şenol Kartal
Instructor's Assistants	: It is not available
Presentation Of Course	: Face to face
Update Date	: 8/27/2025 9:37:38 PM
Dosya İndirilme Tarihi	: 8/27/2025

Course Outcomes

Upon the completion of this course a student :

1 Knows the concept of limits

2 Knows the concept of continuity and its applications

3 Knows the concept of derivative and calculates the derivative of a function.

4 Draws the graph of a function using the derivative

Preconditions

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Weekly Contents

	Teorical	Practice	Laboratory	Preparation Info	Teaching Methods	Course Learning Outcomes
1.Week	*The concept of limit			*1. Study the topics "Limit of a function" between pages 154-162 in your reference book.	*Sözlü anlatım; Tartışma; Soru-Cevap;	Ö.Ç.1 Ö.Ç.1
2.Week	*Limit of a function			*1. Study the topics "Theorems on Limits of Functions" between pages 163-170 in your source book.	*Oral presentation; Discussion; Question and Answer	Ö.Ç.1 Ö.Ç.1
3.Week	*Limit of a function			*1. Study the topics "Limits of trigonometric functions" between pages 170-175 in your reference book.	*Oral presentation; Discussion; Question and Answer	Ö.Ç.1 Ö.Ç.1
4.Week	*Limit Applications			*1. Study the topics "Uncertainties and limits under uncertainty" between pages 176-186 in your source book.	*Oral presentation; Discussion; Question and Answer;	Ö.Ç.1 Ö.Ç.1
5.Week	*Continuity			*1. Study the topics "Continuity and Discontinuity in Functions" between pages 187-194 in your source book.	*Oral presentation; Discussion; Question and Answer	Ö.Ç.2 Ö.Ç.2
6.Week	*Continuity Practices			*1. Study the topics "Theorems about continuity" between pages 194-198 in your source book.	*Oral presentation; Discussion; Question and Answer	Ö.Ç.2
7.Week	*The Concept of Derivative			*1. Study the topics "Derivative of a function" between pages 223-228 in your source book.	*Oral presentation; Discussion; Question and Answer	Ö.Ç.3 Ö.Ç.3
8.Week	*Midterm Week					
9.Week	*Geometric Meaning of Derivative			*1. Study the topics "Geometric meaning of derivative" between pages 251-257 in your source book.	*Oral presentation; Discussion; Question and Answer	Ö.Ç.3 Ö.Ç.3
10.Week	*Derivative of a function			*1. Study the "Basic Derivative Rules" topics between pages 230-250 in your source book.	*Oral presentation; Discussion; Question and Answer	Ö.Ç.3 Ö.Ç.3
11.Week	*Derivative of a function			*1. Study the topics "Derivative of the inverse function and Derivative of Trigonometric functions" between pages 257-270 in your reference book.	*Oral presentation; Discussion; Question and Answer	Ö.Ç.3 Ö.Ç.3
12.Week	*Derivative of a function			*1. Study the topics "Derivative of the inverse trigonometric function and Derivative of logarithm and exponential functions" between pages 270-292 in your reference book.	*Oral presentation; Discussion; Question and Answer	Ö.Ç.3 Ö.Ç.3
13.Week	*Uncertainty cases and the L-hopital rule			*1. Study the topics "Application of Derivatives to Limits" between pages 314-320 in your source book.	*Oral presentation; Discussion; Question and Answer	Ö.Ç.3 Ö.Ç.4
14.Week	*Graphic drawings			*1. Study the topics "Maximum and minimum points of functions, first derivative test for extremum, critical points and inflection points" between pages 329-353 in your reference book.	*Oral presentation; Discussion; Question and Answer	Ö.Ç.4 Ö.Ç.4
15.Week	*graphic drawings			*1. Study the topics "Graphs of Functions" between pages 354-374 in your source book.	*Oral presentation; Discussion; Question and Answer	Ö.Ç.4 Ö.Ç.4

Assesment Methods %

1 Vize : 40.000

2 Final : 60.000

ECTS Workload

Activities	Count	Time(Hour)	Sum of Workload
Vize	1	1.00	1.00
Final	1	1.00	1.00
Ders Öncesi Bireysel Çalışma	14	1.00	14.00
Ara Sınav Hazırlık	7	2.00	14.00
Final Sınavı Hazırlık	7	2.00	14.00
Ödev	10	1.00	10.00

Activities	Count	Time(Hour)	Sum of Workload
Ders Sonrası Bireysel Çalışma	14	1.00	14.00
			Total : 68.00
		Sum of Workload / 30 (Hour) : 2	
		ECTS : 2.00	

Program And OutcomeRelation

	P.O. 1	P.O. 2	P.O. 3	P.O. 4	P.O. 5	P.O. 6	P.O. 7	P.O. 8	P.O. 9	P.O. 10	P.O. 11	P.O. 12	P.O. 13	P.O. 14	P.O. 15	P.O. 16	P.O. 17	P.O. 18	P.O. 19	P.O. 20	P.O. 21	P.O. 22	P.O. 23	P.O.
L.O. 1	1	5	3	5	1	1	3	1	0	0	3	2	5	4	0	4	5	0	0	0	2	2	0	2
L.O. 2	1	5	3	5	1	1	3	1	0	0	3	2	5	4	0	4	5	0	0	0	2	2	0	2
L.O. 3	1	5	3	5	1	1	3	1	0	0	3	2	5	4	0	4	5	0	0	0	2	2	0	2
L.O. 4	1	5	3	5	1	1	3	1	0	0	3	2	5	4	0	4	5	0	0	0	2	2	0	2
Avarage	1.00	5.00	3.00	5.00	1.00	1.00	3.00	1.00	0	0	3.00	2.00	5.00	4.00	0	4.00	5.00	0	0	0	2.00	2.00	0	2.0(

BEWARE OF PLAGIARISM! Please pay attention to proper academic citation rules and avoid plagiarism, an unethical and academically fraudulent behavior, when completing reports, assignments, or other academic works, and it is treated with the same disciplinary action as cheating in a classroom setting. It is imperative to refrain from presenting another person s ideas, language, expressions, or any other form of intellectual property as your own. Regardless of quality, your assignments/projects/research should reflect your original work. Perfection is not a requirement, and in case of any uncertainties regarding academic writing guidelines, you may seek clarification from your course instructor.

Engel Durumu/Uyarlama Talebi : Engel durumuna ilişkin herhangi bir uyarlama talebinde bulunmak isteyen öğrenciler, dersin öğretim elemanı ya da Nevsehir Engelli Öğrenci Birimi ile en kısa sürede iletişime geçmelidir.