


YAKIN DOĞU ÜNİVERSİTESİ – ORTAK DERSLER KOORDİNATÖRLÜĞÜ							
		XXX Bölümü DERS İZLENESİ 2020-21 Bahar Dönemi					
		Ders Kodu MTH101	Ders Adı Calculus I	Kredi 4	5	AKTS	
Önkoşul: -							
Ders Dili: English		Ders Tipi: Compulsory		Yıl: 1		Dönem: 1	
Haftalık Ders Saatleri	Sınıf Saati	Laboratuvar	Uygulama	Öğrenme Oturumları			
	4	0	0	PÇ	BP	D	Ö
				0	0	0	0
Öğretim Görevlisi/Ders Koordinatörü: Common Course E-posta:			Ofis Saatleri: Online Ofis Saati Linki:				
Öğrenme Kazanımları	After the completion of this course, the student will be able to: ► The student gets the idea about Limits of a functions ► The student gets the idea about differentiation ► The student gets the idea about sketching the graph of a function ► The student gets the idea about integral						
Ders Tanımı	Limits and continuity. Derivatives. Rules of differentiation. Higher order derivatives. Chain rule. Related rates. Rolle's and the mean value theorem. Critical Points. Asymptotes. Curve sketching. Integrals. Fundamental Theorem. Techniques of integration. Definite integrals. L'Hôpital' Rule.						
Dersin Amaçları	The course is standart first-year course on Calculus providing basic definitions, concepts and methods of limit, differentiations and integration . The objective is two fold : To make students ready to see applications of calculus on subsequent courses and to enable them to continue their study on more advance level.						
Ders Kitabı ve/veya Kaynaklar	1	THOMAS' CALCULUS ,Weir , Hass, Giordano Eleventh Edition – 2005					
	2	Early Transcendental Functions Robert Smith, Roland Minton 3rd.edition, 2007					
Ders İçeriği							
Derste Kullanılacak Yöntemler							
HAFTALIK DERS İZLENESİ							
Hafta	Tarih	Etkinlikler	Notlar	Referans/Kaynak			
1	22 – 26 Şubat	Derse giriş					
2	1 – 5 Mart	Functions and Limits:The Tangent and Velocity Problems, The Limit of a Function					
3	8 – 12 Mart	Calculating Limits Using the Limit Laws The Precise Definition of a LimitContinuity					
4	15 – 19 Mart	Derivatives and Rates of Change The Derivative as a Function Differentiation Formulas Derivatives of Trigonometric Functions The Chain Rule					
5	22 – 26 Mart	Implicit Differentiation Rates of Change in the Natural and Social Sciences Related Rates Linear Approximations and Differentials					
6	29 Mart – 2 Nisan	Applications of Differentiation Maximum and Minimum Values The Mean Value Theorem How Derivatives Affect the Shape of a Graph					
7	5– 9 Nisan	How Derivatives Affect the Shape of a Graph Limits at Infinity; Horizontal Asymptotes					
8	12– 16 Nisan	Summary of Curve Sketching.Optimization Problems Antiderivatives					
9	19 – 22 Nisan	ARA SINAVLAR					
10	26– 30 Nisan	Antiderivatives IntegralsAreas and Distances					
11	3 – 7 Mayıs	The Definite Integral The Fundamental Theorem of Calculus Indefinite Integrals and the Net Change Theorem The Substitution					

		Rule			
12	10 – 12 Mayıs	Applications of IntegrationAreas Between Curves Inverse Functions Exponential Functions and Their Derivatives			
13	17 – 21 Mayıs	Applications of IntegrationThe Natural Logarithmic FunctionThe Natural Exponential Function Derivatives of Logarithmic Functio			
14	24 – 28 Mayıs	Trigonometric IntegralsTrigonometric Substitution Integration of Rational Functions by Partial Fractions			
15	31 Mayıs – 4 Haz				
16	7 – 16 Haziran	FİNAL SINAVLARI			
Derse Katılım: Minimum 70 %					
Değerlendirme:	Yöntem		Tarih	%	Referans/Kaynak
	1	Quiz	Week 5	5	
	2	Midterm	Week 9	40	
	3	Quiz	Week 12	5	
	4	Final	Week16	50	
Öğrenme Programı					
Eğitim Aracı	Miktar	Öğrenci İş Yüğü (Saat)	Eğitim Aracı	Miktar	Öğrenci İş Yüğü (Saat)
In class (14 weeks)	16	64	Final exam	1	25
Quiz	2	2	Self study	14	56
Assignment (preparation included)	1	2			
Mid-term exam	1	10	Toplam	160	
		Öngörülen AKTS Kredisi (Toplam İş Yüğü / 30) :	/30 = ~ 5		