Spring 2022

MATH 126, Basic Mathematics II

Frequency: Spring Semester **METU Credit:** 4(3-2)

Catalog description: Analytic Geometry in R^2 , R^3. Functions of one and several variables: Limit, continuity and differentiation. Chain rule, implicit differentiation. Differential calculus, optimization, Lagrange multipliers. The definite integral. The indefinite integral. Logarithmic and exponential functions. Techniques of integration: Integration by substitution, integration by parts, integration by partial fractions.

Course instructor: M. Fırat Arıkan

Suggested textbook: M. Dabbagh, A. Doğanaksoy, Calculus for Students of Social Sciences. (can be found at Math Depart., Room Z23, and will be available online in parts)

Suggested reference book: Any calculus book for freshman students

Course Webpage: http://ma126.math.metu.edu.tr/

NOTE: All students enrolled in this course are supposed to follow this website and also **ODTUClass Math 126 webpage** regularly, since they are responsible for catching up **announcements** listed.

Grading Policy: (Also READ Math 126 Course Policy for more details)

MidTerm1:	30 Points **(April 16th, 2022 Saturday at 13:30)**
MidTerm2:	30 Points **(June 04th, 2022 Saturday at 13:30)**
Final Exam:	40 Points **(to be announced later)**
Quiz:	5 Points (bonus)

Information**for Students with Disabilities
Students who experience difficulties due to their disabilities and wish to obtain academic adjustments and/or auxiliary aids must contact ODTU Disability Support Office and/or course instructor and the advisor of students with disabilities at academic departments (for the list: http://engelsiz.metu.edu.tr/en/advisor-students-disabilities <http://engelsiz.metu.edu.tr/en/advisor-students-disabilities>) as soon as possible. For detailed information, please visit the website of Disability Support Office: https://engelsiz.metu.edu.tr/en/ <https://engelsiz.metu.edu.tr/en/>

Week	Dates	(Tentative) Syllabus (Math 126) Spring 2022
1	March 07-11	Ch 1: Analytic Geometry Coordinate Systems
2	March 14-18	Curves
3	March 21-25	Surfaces Vectors
4	March 28-April 01	Planes Straight Lines
5	April 04-08	Ch 2: Functions, Limits, Continuity Functions of Several Variables Limits of Single Valued Functions
6	April 11-15	Continuity of Single Valued Functions ☺**Midterm 1 (April 16, 2022, Saturday at 13:30 am)**
7	April 18-22	Limits and Continuity of Functions of Several Variables Ch 3: Differentiation The Derivative, Partial Derivatives ***April 23, National Holiday (National Sovereignty and Children's Day)***
8	April 25-29	Tangent Line Approximation and Differentials Related Rates ***May 1, Labor and Solidarity Day***
9	May 02-06	Review ***May 02-04, Ramadan Religious holiday (Holiday eve: May 01)***
10	May 09-13	Ch 4: Applications of Differentiation Extrema The Mean Value Theorem Concavity
11	May 16-20	Infinite Limits and Limits at Infinity Indeterminate Forms and L`Hopital`s Rule ***May 19, National Holiday (Commemoration of Atatürk & Youth and Sports Festival)***
12	May 23-27	Optimization Problems Extrema of Functions of Several Variables
13	May 30-June 03	Ch 5: Integration Definite Integral ☺**Midterm 2 (June 4, 2022, Saturday at 13:30 am)**
14	June 06-10	Anti-derivatives and Indefinite Integral Logarithmic and Exponential Functions
15	June 13-17	Methods of Integration
		☺**Final Exam (to be announced later)**