Spring 2023

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: Mehmetcik Pamuk

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:	32 Points **(April 15th 2023 Saturday at 13:30)**
MidTerm2:	32 Points **(May 27th 2023 Saturday at 13:30)**
Final Exam:	41 Points **(TBA)**

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 2023
1	March 06-10	Ch 1: Analytic Geometry Coordinate Systems
2	March 13-17	Curves
3	March 20-24	Surfaces Vectors
4	March 27-31	Planes Straight Lines
5	April 03-07	Ch 2: Functions, Limits, Continuity Functions of Several Variables Limits of Single Valued Functions
6	April 10-14	Continuity of Single Valued Functions ☺**Midterm 1 (April 15 2023, Saturday at 13:30)**
7	April 17-21	Limits and Continuity of Functions of Several Variables Ch 3: Differentiation The Derivative, Partial Derivatives
8	April 24-28	Tangent Line Approximation and Differentials Related Rates
9	May 01-05	Ch 4: Applications of Differentiation Extrema The Mean Value Theorem Concavity ***May 1, Labor and Solidarity Day***
10	May 08-12	Infinite Limits and Limits at Infinity Indeterminate Forms and L`Hopital`s Rule
11	May 15-19	Optimization Problems Extrema of Functions of Several Variables ***May 19, National Holiday (Commemoration of Atatürk & Youth and Sports Festival)***
12	May 22-26	Ch 5: Integration Definite Integral ☺**Midterm 2 (May 27 2023, Saturday at 13:30)**
13	May 29-June 02	Anti-derivatives and Indefinite Integral Logarithmic and Exponential Functions
14	June 05-09	Methods of Integration
		☺**Final Exam (TBA)**