Content

Course Code	Course Name	Semester	Theory	Practice	Lab	Credit	ECTS
MAT102	Analysis in One Variable II	2	3	2	0	5	8

Prerequisites	
Admission Requirements	

Language of Instruction	French
Course Type	Compulsory
Course Level	Bachelor Degree
Objective	Establish the fundamental concepts of real analysis with appropriate mathematical precision and learn the methods and knowledge necessary for continuing mathematics education
Content	Derivatives, Integrals, Known Functions, Parametric Curves (if time permits)
References	A First Course in Real Analysis, Sterling K.Berberian, Springer Calculus, TÜBA yayınları Mathématiques de 1er cycle, 1er année, Dixmier

Theory Topics

Week	Weekly Contents
1	Derivatites
2	Derivatives
3	Derivatability , l'Hopital Rule
4	Mean Value Theorem and Rolle Theorem
5	Applications of Derivative
6	Usual Functions
7	Introduction to Integration
8	Midterm Exam I
9	Primitives
10	Integral and Primitive, Riemannian Integration
11	Theorem Combining Derivative and Integral for Continuous Functions: Fundamental Theorem of Calculus
12	Improper Integral
13	Parametric Curves
14	Summary