

Real Analysis II

Math-307

Credit Hours: 3

Recommended Book:

- 1) Fulks W, *Advanced Calculus*, John Wiley, New York

Contents:

Series of numbers and their convergence. Series of functions and their convergence. Dabroux upper and lower sums and integrals; Dabroux integrability. Riemann sums and the Riemann integral. Riemann integration in \mathbb{R}^2 , change of order of variables of integration. Riemann integration in \mathbb{R}^3 , and \mathbb{R}^n . Riemann-Steiltjes integration. Functions of bounded variation. The length of a curve in \mathbb{R}^n . Lebesgue integration.