The Department of Mathematics
2021–22–A term

Course Name  Fundamentals of Measure Theory
Course Number  201.1.0081

Lecturer  Prof. Ilan Hirshberg, <ilan@bgu.ac.il>, Office 203
Office Hours  https://www.math.bgu.ac.il/en/teaching/hours

Abstract

Requirements and grading

Course topics

Algebras and sigma-algebras of subsets, the extension theorem and construction of Lebesgue’s measure on the line, general measure spaces, measurable functions and their distribution functions, integration theory, convergence theorems (Egorov’s, relations between convergence in measure and a.e. convergence), the spaces $L_1$ and $L_2$ and their completeness, signed measures, the Radon-Nikodym theorem, measures in product spaces and Fubini’s theorem.

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Information may change during the first two weeks of the term. Please consult the webpage for updates