



## The Department of Mathematics

2023–24–B term

**Course Name** Introduction to Differential Equations B2

**Course Number** 201.1.9471

**Course web page**

<https://www.math.bgu.ac.il/en/teaching/spring2024/courses/introduction-to-differential-equations-b2>

**Lecturer** Prof. Alexander Ukhlov, <ukhlov@bgu.ac.il>, Office 305

**Office Hours** <https://www.math.bgu.ac.il/en/teaching/hours>

### Abstract

### Requirements and grading<sup>1</sup>

### Course topics

First-Order PDE Cauchy Problem Method of Characteristics The Wave Equation: Vibrations of an Elastic String D'Alembert's Solution Fourier Series Fourier Sine Series Initial-Boundary Value Problems The Wave Equation .Separation of Variables Fourier Series Solution of the Heat Equation The Heat Equation. Duhamel's Principle. Laplace's Equation. Dirichlet Problem for a Disc

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<sup>1</sup>Information may change during the first two weeks of the term. Please consult the webpage for updates