

## The Department of Mathematics

2021–22–A term

**Course Name** Introduction to Differential Equations B

**Course Number** 201.1.9171

**Course web page**

<https://www.math.bgu.ac.il/en/teaching/fall2022/courses/introduction-to-differe>

**Lecturer** Prof. Arkady Poliakovsky, <poliakov@bgu.ac.il>, Office 314

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

### Abstract

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

### Course topics

Ordinary differential equations: explicit solutions of first order equations. 2nd order equations. Higher order ordinary differential equations. Systems of ordinary differential equations. 2. Fourier series: Review of series of functions, Fourier expansions and properties of Fourier series, convergence of Fourier series, Gibbs phenomenon. Application to the heat conduction equation. 3. Additional applications as time permits.

---

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