

# The Department of Mathematics

2023-24-A term

Course Name Introduction to Dffierential Equations C

**Course Number** 201.1.9271

#### Course web page

https://www.math.bgu.ac.il//en/teaching/fall2024/courses/introduction-to-differe

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

#### **Abstract**

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

### **Course topics**

- .1 Ordinary dffierential equations: explicit solutions of first -order equations. 2nd order equations. Higher order ordinary dffierential equations. Systems of ordinary dffierential equations.
- .2 Fourier series: Review of series of functions, Fourier expansions and properties of Fourier series, convergence of Fourier series, Gibbs phenomenon. Application to periodic ODE's.
- .3 The Laplace transform and applications to ODE's.

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