

The Department of Mathematics

2024–25–A term

Course Name Introduction to Differential Equations C

Course Number 201.1.9271

Course web page

<https://math.bgu.ac.il/en/teaching/fall2025/courses/introduction-to-differentia>

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

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

Abstract

Requirements and grading¹

Course topics

- .1 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 periodic ODE's.
- .3 The Laplace transform and applications to ODE's.

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