

The Department of Mathematics

2021–22–A term

Course Name Ordinary Differential Equations for Chemistry Students

Course Number 201.1.9341

Course web page

<https://www.math.bgu.ac.il/en/teaching/fall2022/courses/ordinary-differential-e>

Lecturer Dr. Natalia Gulko, <gulko@post.bgu.ac.il>, Office מיוס 108

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

Abstract

Requirements and grading¹

Course topics

Basic concepts, direction fields. First order differential equations. Separable and exact equations, integrating factors. Methods for finding explicit solutions, Bernoulli equations. Euler approximations. Examples, population growth. Second order differential equations. Equations with constant coefficients, the solution space, the Wronskian. Nonhomogeneous equations. Variation of parameters. Systems of two first order equations with constant coefficients. Examples and applications.

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