

## The Department of Mathematics

2020–21–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/fall2021/courses/ordinary-differential-e>

**Lecturer** Prof. Boris Zaltzman, <boris@bgu.ac.il>, Office 211

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

### Abstract

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

### 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.

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