

## The Department of Mathematics

2021–22–B term

**Course Name** Linear Algebra for Electrical Engineering 1

**Course Number** 201.1.9511

**Course web page**

<https://www.math.bgu.ac.il/en/teaching/spring2022/courses/linalgee>

**Lecturer** Prof. Mikhail Muzychuk, <muzychuk@bgu.ac.il>, Office 305

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

### Abstract

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

### Course topics

- .1 Fields: the definition of a field, complex numbers.
- .2 Linear equations: elementary operations, row reduction, homogeneous and non-homogeneous equations, parametrization of solutions.
- .3 Vector spaces: examples, subspaces, linear independence, bases, dimension.
- .4 Matrix algebra: matrix addition and multiplication, elementary operations, the inverse matrix, the determinant and Cramer's law. Linear transformations: examples, kernel and image, matrix representation.

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