

# The Department of Mathematics

#### 2020-21-A 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/fall2021/courses/linear-algebra-for-elec

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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 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: examplex, 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.

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