The Department of Mathematics
2017–18–B term

Course Name  Introduction to Linear Algebra C
Course Number  201.1.9281
Lecturer  Dr. Natalia Karpivnik, <mordeev@bgu.ac.il>, Office 10
Office Hours  https://www.math.bgu.ac.il/en/teaching/hours

Requirements and grading

Course topics

1. Introduction: the real and complex numbers, polynomials.

2. Systems of linear equations and Gauss elimination.

3. Vector spaces: examples (Euclidean 2-space and 3-space, function spaces, matrix spaces), basic concepts, basis and dimension of a vector space. Application to systems of linear equations.

4. Inverse matrices, the determinant, scalar products.

5. Linear transformations: kernel and image, the matrix representation of a transformation, change of basis.

6. Eigenvalues, eigenvectors and diagonalization.

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