

The Hebrew University of Jerusalem

Syllabus

LINEAR ALGEBRA (1) - 80134

Last update 14-04-2020

HU Credits: 6

<u>Degree/Cycle:</u> 1st degree (Bachelor)

Responsible Department: Mathematics

Academic year: 0

Semester: 1st and/or 2nd Semester

<u>Teaching Languages:</u> Hebrew

Campus: E. Safra

Course/Module Coordinator: Alex Gurevich

<u>Coordinator Email: gurevich@math.huji.ac.il</u>

Coordinator Office Hours: By appointment

Teaching Staff:

Dr. Ori Parzan

Mr. Itamar Cwik

Mr. Muhamad Abu-Radi

Mr. Noam Kolodner

Dr. GILI SCHUL-GANZ

Mr. Tzoor Plotnikov

Mr. Behar Amir

Mr. Pavel Giterman

Mr. Elad Kosloff

Dr. Alex Gourevich

Mr.

Mr. Raz Or

Mr.

Course/Module description:

Fields. Complex Numbers. Vector Spaces. Linear Equations. Determinants. Matrices and Linear Transformations.

Course/Module aims:

Introduction to Linear Algebra.

<u>Learning outcomes - On successful completion of this module, students should be able to:</u>

Familiarity with the definition of a Field, a Vector Space, a Basis, and a spanning set.

To prove theorems regarding the basic properties of vector spaces.

The concept of a linear transformation and its matrix representation, and the concept of a determinant.

Applications of linear spaces and transformations to analyze solutions to systems of linear equations.

Attendance requirements(%):

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Teaching arrangement and method of instruction: Lecture + exercise

Course/Module Content:

Fields. Complex Numbers. Vector Spaces. Linear Equations. Determinants. Matrices and Linear Transformations.

Required Reading:

none

Additional Reading Material:

K.Hoffman, R.Kunze, Linear Algebra

Course/Module evaluation:

End of year written/oral examination 80 %
Presentation 0 %
Participation in Tutorials 0 %
Project work 0 %
Assignments 20 %
Reports 0 %
Research project 0 %
Quizzes 0 %
Other 0 %

Additional information:

If necessary, an examination will be conducted by electronic means. If an examination is not possible, the evaluation will be based on the exercises.