

The Hebrew University of Jerusalem

Syllabus

LINEAR ALGEBRA (1) - 80134

Last update 17-10-2017

<u>HU Credits:</u> 6

Degree/Cycle: 1st degree (Bachelor)

Responsible Department: mathematics

<u>Academic year:</u> 0

Semester: 1st and/or 2nd Semester

<u>Teaching Languages:</u> Hebrew

<u>Campus:</u> E. Safra

Course/Module Coordinator: Prof Zlil Sela

Coordinator Email: sela@math.huji.ac.il

Coordinator Office Hours: By appointment

Teaching Staff:

Prof Ehud Deshalit Prof Zlil Sela Mr. Mr. Lior Yanovski Mr. Muhamad Abu-Radi Dr. Alex Gourevich Mr. Ariel Davis Mr. Amitai Yuval Mr. Itamar Cwik Mr. Michael Simkin

Course/Module description:

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

<u>Course/Module aims:</u> Introduction to Linear Algebra.

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

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.

<u>Attendance requirements(%):</u> 0

Teaching arrangement and method of instruction: Lecture + exercise

Course/Module Content:

Fields. Complex Numbers. Vector Spaces. Linear Equations. Determinants. Matrices and Linear Transformations. <u>Required Reading:</u> none

<u>Additional Reading Material:</u> none

Course/Module evaluation:

End of year written/oral examination 80 % Presentation 0 % Participation in Tutorials 0 % Project work 0 % Assignments 10 % Reports 0 % Research project 0 % Quizzes 10 % Other 0 %

<u>Additional information:</u> none