



## Syllabus

### LIE ALGEBRAS - 80869

Last update 04-09-2021

HU Credits: 2

Responsible Department: Mathematics

Academic year: 0

Semester: 2nd Semester

Teaching Languages: English and Hebrew

Campus: E. Safra

Course/Module Coordinator: Prof Aner Shalev

Coordinator Email: [shalev@math.huji.ac.il](mailto:shalev@math.huji.ac.il)

Coordinator Office Hours:

Teaching Staff:  
Prof Aner Shalev

Course/Module description:  
A relatively elementary introduction to Lie Algebras

---

Course/Module aims:

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

NA

Attendance requirements(%):

*Teaching arrangement and method of instruction:*

Course/Module Content:

*Lie rings and Lie algebras, examples, derivations, ideals, homomorphisms, nilpotent Lie algebras and Engel's theorem, solvable Lie algebras and theorems of Lie and Cartan, semisimple Lie algebras, introduction to representation theory*

Required Reading:

NA

Additional Reading Material:

*Humphreys: Introduction to Lie Algebras and Representation Theory*

*Grading Scheme:*

Additional information: