

# The Hebrew University of Jerusalem

Syllabus

## Boolean algebras - 80699

Last update 27-08-2024

<u>HU Credits:</u> 2

Degree/Cycle: 2nd degree (Master)

Responsible Department: Mathematics

<u>Academic year:</u> 0

Semester: 2nd Semester

<u>Teaching Languages:</u> Hebrew

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

Course/Module Coordinator: Shimon Garti

Coordinator Email: shimon.garty@mail.huji.ac.il

Coordinator Office Hours: by appointment

Teaching Staff:

### Dr. Shimon Garty

#### Course/Module description:

We will focus on infinite Boolean algebras, trying to cover classical issues like representation theorems, completions and free constructions.

#### <u>Course/Module aims:</u>

To acquire the basics of Boolean algebras.

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

Read advanced material, including neighbor areas (e.g., set theory) related to Boolean algebras.

#### <u>Attendance requirements(%):</u> None

Teaching arrangement and method of instruction: Lecture

#### Course/Module Content:

Arithmetic of Boolean algebras, Stone's representation theorems, completions of Boolean algebras, free constructions, decidability.

#### <u>Required Reading:</u> None

<u>Additional Reading Material:</u> Handbook of Boolean algebras, research articles.

<u>Grading Scheme:</u> Essay / Project / Final Assignment / Home Exam / Referat 100 %

#### Additional information: