



# *The Hebrew University of Jerusalem*

## *Syllabus*

### *Boolean algebras - 80699*

*Last update 27-08-2024*

*HU Credits: 2*

*Degree/Cycle: 2nd degree (Master)*

*Responsible Department: Mathematics*

*Academic year: 2025*

*Semester: 2nd Semester*

*Teaching Languages: Hebrew*

*Campus: E. Safra*

*Course/Module Coordinator: Shimon Garti*

*Coordinator Email: [shimon.garty@mail.huji.ac.il](mailto:shimon.garty@mail.huji.ac.il)*

*Coordinator Office Hours: by appointment*

*Teaching Staff:*

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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.*

Course/Module aims:

*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.*

Attendance requirements(%):

*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.*

Required Reading:

*None*

Additional Reading Material:

*Handbook of Boolean algebras, research articles.*

Grading Scheme:

*Essay / Project / Final Assignment / Home Exam / Referat 100 %*

Additional information: