The Hebrew University of Jerusalem

Syllabus

TOPICS IN SET THEORY - 80909

Last update 01-11-2019

HU Credits: 2

Degree/Cycle: 2nd degree (Master)

Responsible Department: Mathematics

Academic year: 0

Semester: 1st Semester

Teaching Languages: English and Hebrew

Campus: E. Safra

Course/Module Coordinator: Prof Omer Ben-Neria

Coordinator Email: omer.bn@mail.huji.ac.il

Coordinator Office Hours:

Teaching Staff:

Prof Omer Ben-Neria

Course/Module description:
The purpose of the course is to introduce the theory of infinite games and determinacy

Topics will include:
1. Infinite games associated with sets of reals
2. The Axiom of Determinacy (AD) and applications to descriptive set theory
3. Martin's Theorem on Borel Determinacy and applications to infinite combinatorics

4. Determinacy of Analytic and Projective sets

Course/Module aims:
Introducing the theory of infinite games and determinacy

Learning outcomes - On successful completion of this module, students should be able to:
Introducing the theory of infinite games and determinacy

Attendance requirements(%):

Teaching arrangement and method of instruction:

Course/Module Content:
The purpose of the course is to introduce the theory of infinite games and determinacy

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Required Reading:

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Additional Reading Material:

1. The Higher Infinite - Akihiro Kanamori

2. Classical Descriptive Set Theory - Alexander Kechris

Course/Module evaluation:

End of year written/oral examination 0 %
Presentation 50 %
Participation in Tutorials 0 %
Project work 50 %
Assignments 0 %
Reports 0 %
Research project 0 %
Quizzes 0 %
Other 0 %

Additional information: