

The Hebrew University of Jerusalem

Syllabus

Joint Combinatorics and Model Theory seminar - 80666

Last update 02-09-2018

HU Credits: 2

Degree/Cycle: 2nd degree (Master)

Responsible Department: Mathematics

Academic year: 2019

Semester: 1st Semester

Teaching Languages: English

Campus: E. Safra

*Course/Module Coordinator: Prof Itay Kaplan
Prof Karim Adiprasito*

Coordinator Email: adiprasito@math.huji.ac.il, kaplan@math.huji.ac.il

Coordinator Office Hours: on demand

Teaching Staff:

Prof Itay Kaplan
Prof Karim Adiprasito

Course/Module description:

We will go over recent results relating model theory and regularity lemmas and finite combinatorics in an abstract model theory framework.

Course/Module aims:

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

To be familiar with some model theoretic techniques used to prove results in finite combinatorics.

Attendance requirements(%):

100%

Teaching arrangement and method of instruction: seminar

Course/Module Content:

Regularity lemmas, finite combinatorics, basic model theory and classification.

Required Reading:

The papers read in the seminar may include the following:

<https://arxiv.org/abs/1507.01482>

<https://arxiv.org/abs/1607.07701>

<https://arxiv.org/abs/1609.05951>

<https://arxiv.org/abs/1612.00908>

Additional Reading Material:

Komlós, J. and Simonovits, M. (1996), "Szemerédi's regularity lemma and its applications in graph theory"

Katrin Tent and Martin Ziegler (2012), "A course in model theory"

Kaplan's lecture notes on model theory are also available per request.

Course/Module evaluation:

End of year written/oral examination 0 %

Presentation 100 %

Participation in Tutorials 0 %

Project work 0 %

Assignments 0 %

Reports 0 %

Research project 0 %

Quizzes 0 %

Other 0 %

Additional information: