האוניברסיטה העברית בירושלים
THE HEBREW UNIVERSITY OF JERUSALEM

The Hebrew University of Jerusalem

Syllabus

Topics in number theory and algebraic geometry 1 - 80942

Last update 20-09-2024

HU Credits: *1*

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: *Dr. Borys Kadets*

Coordinator Email: *borys.kadets@mail.huji.ac.il*

Coordinator Office Hours: *By appointment*

Teaching Staff:
Dr. Borys Kadets

Course/Module description:
The purpose of this lunch seminar is to expose students a wide array of techniques and results in number theory and arithmetic geometry. The theme of the semester will be "p-adic methods in number theory". Our aim is to keep prerequisites low though exactly how much background is assumed will depend on the week. Prior exposure to algebraic or analytic number theory or algebraic curves should be sufficient to follow for most weeks.

Course/Module aims:
To describe central topics in number theory and algebraic geometry

Learning outcomes - On successful completion of this module, students should be able to:
To understand central topics in number theory and algebraic geometry

Attendance requirements(%):
100

Teaching arrangement and method of instruction: Lectures

Course/Module Content:
Possible topics:
p-adic numbers, valuations, applications to zeta functions of varieties over finite fields, p-adic analogues of the zeta function

Required Reading:
None

Additional Reading Material:
Koblitz, "p-adic numbers, p-adic analysis, and Zeta-functions"

Grading Scheme:
Attendance / Participation in Field Excursion 100 %

Additional information: