



The Hebrew University of Jerusalem

Syllabus

ADVANCED SEMINAR IN ANALYSIS - 80742

Last update 19-04-2024

HU Credits: 2

Degree/Cycle: 2nd degree (Master)

Responsible Department: Mathematics

Academic year: 2024

Semester: 2nd Semester

Teaching Languages: Hebrew

Campus: E. Safra

Course/Module Coordinator: Dr. Cy Maor

Coordinator Email: cy.maor@mail.huji.ac.il

Coordinator Office Hours: By appointment

Teaching Staff:

Dr. Cy Maor

Course/Module description:

In this seminar we will learn jointly an advanced topic in analysis and geometric measure theory.

Course/Module aims:

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

The student will acquire the ability to read an advanced mathematical text and lecture its content.

Attendance requirements(%):

Teaching arrangement and method of instruction:

Course/Module Content:

Topics in analysis and the calculus of variations, concerning functions of bounded variations, sets of finite perimeter and more (exact topics will be determined later)

Required Reading:

Selected chapters from:

Evans & Gariepy: Measure Theory and Fine Properties of Functions

Ambrosio, Fusco & Pallara: Functions of Bounded Variation and Free Discontinuity Problems

Rindler: Calculus of Variations

Additional Reading Material:

Grading Scheme:

Presentation / Poster Presentation / Lecture/ Seminar / Pro-seminar / Research proposal 60 %
Active Participation / Team Assignment 10 %
Submission assignments during the semester: Exercises / Essays / Audits / Reports / Forum / Simulation / others 10 %
Personal Guide / Tutor / Team Evaluation 20 %

Additional information: