



## *Syllabus*

### **ADVANCED SEMINAR IN ANALYSIS - 80742**

*Last update 19-04-2024*

*HU Credits:* 2

*Responsible Department:* Mathematics

*Academic year:* 0

*Semester:* 2nd Semester

*Teaching Languages:* Hebrew

*Campus:* E. Safra

*Course/Module Coordinator:* Dr. Cy Maor

*Coordinator Email:* [cy.maor@mail.huji.ac.il](mailto: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*

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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 %

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*Personal Guide / Tutor / Team Evaluation 20 %*

*Additional information:*