האוניברסיטה העברית בירושלים
THE HEBREW UNIVERSITY OF JERUSALEM

The Hebrew University of Jerusalem

Syllabus

ERGODIC THEORY - 80615

Last update 09-01-2022

HU Credits: 3

Degree/Cycle: 2nd degree (Master)

Responsible Department: Mathematics

Academic year: 0

Semester: 2nd Semester

Teaching Languages: English and Hebrew

Campus: E. Safra

Course/Module Coordinator: Prof.Benjamin Weiss

Coordinator Email: weiss@math.huji.ac.il

Coordinator Office Hours: By appointment

Teaching Staff:

Prof Benjamin Weiss

Course/Module description:
An introductory course in ergodic theory

Course/Module aims:
To learn the basics of ergodic theory

Learning outcomes - On successful completion of this module, students should be able to:
The students will be able to take advanced courses in ergodic theory

Attendance requirements(%):

Teaching arrangement and method of instruction:

Course/Module Content:
motivation, Poincare recurrence, mean and pointwise ergodic theorems, mixing and weak mixing, invariant measures, ergodic decomposition, entropy, Shannon-McMillan-Breiman theorem, Pinsker factor and K-systems

Required Reading:
None

Additional Reading Material:
Ergodic theory with a view toward number theory, Einsiedler- Ward

Ergodic theory, Petersen

My notes that are on the university site

Course/Module evaluation:
End of year written/oral examination 0 %
Presentation 0 %
Participation in Tutorials 0 %
Project work 100 %

Assignments 0 %
Reports 0 %
Research project 0 %
Quizzes 0 %
Other 0 %

Additional information: