The Hebrew University of Jerusalem

Syllabus

TOPICS IN ANALYTIC NUMBER THEORY - 80874

Last update 24-02-2019

HU Credits: 2

Degree/Cycle: 2nd degree (Master)

Responsible Department: Mathematics

Academic year: 0

Semester: 2nd Semester

Teaching Languages: Hebrew

Campus: E. Safra

Course/Module Coordinator: tamar ziegler

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

Coordinator Office Hours:

Teaching Staff:

Prof Tamar Ziegler-Lehavi

Course/Module description:
  We will study analytic number theory from a pretentious point of view - following Granville and Sound.
We also plan to discuss the recent results on multiplicative functions in short intervals, and correlations of multiplicative functions.

Course/Module aims:
  Analytic number theory from a pretentious point of view

Learning outcomes - On successful completion of this module, students should be able to:
  Students will learn techniques in analytic number theory.

Attendance requirements(%):
  90

Teaching arrangement and method of instruction: Lecture

Course/Module Content:
  Classical theorems for a pretentious point of view. Matomaki-Radziwill theorem on multiplicative functions in short intervals, Tao's proof of the Erdos discrepancy problem.

Required Reading:
 relevant papers

 Additional Reading Material:

  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 %

<u>Additional information:</u>