



## *The Hebrew University of Jerusalem*

### *Syllabus*

## *Analytic Number Theory - 80610*

*Last update 30-03-2025*

*HU Credits: 3*

*Degree/Cycle: 2nd degree (Master)*

*Responsible Department: Mathematics*

*Academic year: 0*

*Semester: 2nd Semester*

*Teaching Languages: English*

*Campus: E. Safra*

*Course/Module Coordinator: Zev Rosengarten*

*Coordinator Email: [zev.rosengarten@mail.huji.ac.il](mailto:zev.rosengarten@mail.huji.ac.il)*

*Coordinator Office Hours:*

*Teaching Staff:*

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Dr. Zev Rosengarten

Course/Module description:

*A thorough introduction to the classical results of analytic number theory*

Course/Module aims:

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

*Students will learn classical theorems in analytic number theory*

Attendance requirements(%):

Teaching arrangement and method of instruction:

Course/Module Content:

*Distribution of prime numbers and primes in arithmetic progressions, zeta and L-functions, applications*

Required Reading:

*Davenport: Multiplicative Number Theory*

Additional Reading Material:

*Apostol, Introduction to Analytic Number Theory*

Grading Scheme:

*Essay / Project / Final Assignment / Home Exam / Referat 50 %  
Submission assignments during the semester: Exercises / Essays / Audits / Reports / Forum / Simulation / others 50 %*

Additional information:

