

**SPRING 2021, MATH 532, ANALYTIC THEORY OF
NUMBERS II : MULTIPLICATIVE NUMBER THEORY**

INSTRUCTOR: ALEXANDRU ZAHARESCU

Math 532, D1, TR 12:30 - 1:50 PM

In this course we will discuss ideas from multiplicative number theory. The largest part of the course will cover classical material focussing on the Riemann zeta function and Dirichlet L -functions. For this part we will follow Davenport's book. In the last part of the course we will study some recent papers on the distribution of zeros of the Riemann zeta function and more general L -functions.

Prerequisite: MATH 531.

Recommended Textbook:

Harold Davenport, Multiplicative number theory. Third edition. Graduate Texts in Mathematics, 74. Springer-Verlag, New York, 2000. xiv+177 pp. ISBN: 0-387-95097-4

There will be no exams. Students registered for this course will be expected to give a couple of lectures on some topics related to the content of the course. In addition some homework problems will be assigned.

Office hours : Tuesday - Thursday 1:50 - 3pm.

Office: 449 Altgeld Hall.

E-mail: *zaharesc@illinois.edu*