

Honors Analysis Sequence
MATH 20700-20800-20900
University of Chicago
2020-2021 Academic Year

During the 2020-2021 academic year, the Honors Analysis sequence Math 20700-20800-20900 (an honors version of the sequence Math 20300-20400-20500) will again be made available to one section (approximately thirty students) of outstanding first- and second-years. Each course in the sequence will be offered MWF 10:30–11:20. Any student may apply for admission. Applications will be accepted until Friday, June 5. Decisions will be made during the summer, and students who are accepted will automatically be enrolled in Math 20700 for Autumn 2020.

Math 20700-20800-20900 is conducted at a level that is equivalent to a graduate course at many universities. The material covered includes metric spaces, normed linear spaces, the Lebesgue integral and the many related convergence theorems, differential calculus in Euclidean space, functions of a complex variable, Fourier series and integrals, calculus on manifolds, and other topics. In this course, the student will:

1. Learn about all the basic structures that play a role in mathematics.
2. Learn to prove deep theorems (especially in Analysis).
3. Learn to spend substantial amounts of time outside the classroom doing serious mathematics.
4. Learn to investigate a variety of mathematical ideas not necessarily related to the material covered in class.

Problem sessions are held weekly, and students are encouraged to participate actively both in class and in problem sessions. Math 20700-20800-20900 is designed to provide a solid foundation for further study in mathematics. These courses are intended for serious students with an interest in analysis and a capacity for sustained effort. To be eligible, a student must:

- be enthusiastic about mathematics; and
- earn an A in each of Math 16100-16200-16300 (or 16110-16210-16310) during 2019-20 (possibly including an A- or two); and
- have a positive recommendation of their Math 160s instructor(s).

Any student who thinks they will be eligible for honors Math 20700-20800-20900 by September 2020 and who wishes to be considered for admission should submit an application form to John Boller by e-mail (boller“at”math.uchicago.edu) while undertaking their advanced registration for Autumn 2020. We will e-mail all applicants of their admission status in Summer 2020. Students seeking additional information about Math 20700-20800-20900 should consult John Boller or Bob Fefferman (r-fefferman“at”uchicago.edu). The **one page** application is due no later than Friday, June 5.

APPLICATION FOR ADMISSION TO THE HONORS SEQUENCE
MATH 20700-20800-20900

Your name (print clearly): _____

Your e-mail address: _____

Your student ID Number: _____

Give the final grade and the name of the instructor in the appropriate blanks following:

Math 16100/16110 Instructor: _____ Grade: _____

Math 16200/16210 Instructor: _____ Grade: _____

Math 16300/16310 Instructor: _____

Who is your College Adviser? _____

What is likely to be your major field of study? _____

Why do you want to take Honors Analysis? _____

What courses besides mathematics courses do you expect to take in Autumn 2020?

Anything else we should know?

Note: Applicants should select one of the sections of Math 20310 (accelerated analysis) as their analysis course for Autumn 2020 during bidding and pre-registration. Applicants admitted to the honors sequence Math 20700-20800-20900 in Autumn 2020 will receive an e-mail in summer admitting them to the sequence and John Boller will add these admitted students to Math 20700.

Signature: _____

Date: _____

Return this sheet to John Boller (boller“at”math.uchicago.edu) by Friday, June 5.