

The Senior Thesis for Mathematics Majors¹

Students in the Mathematics Program have the option of writing a Thesis on a subject in Mathematics, or in an interdisciplinary area connected to Mathematics. This project is intended to give the student a better sense of how mathematics is done and used, and to develop in the student the habit of learning mathematics and its applications in an independent setting. In most cases this work would be expected to be expository, but based on advanced level readings. It should represent an effort that goes beyond what is found in an undergraduate course. It is especially desirable for a student to present a somewhat novel approach to an established subject, or to explore one of the many interesting connections that mathematics has with other disciplines.

During the second semester of the junior year, and the first semester of the senior year, the student will work closely with a faculty advisor on a program of readings in preparation for the thesis. The student will receive 1 credit each of these two semesters for this work, under Math 46-800 (Directed Readings).

The thesis is to be crafted and completed during the second semester of the senior year. The thesis must be submitted to the Director of Undergraduate Studies by April 15 of the senior year. The signature of the faculty advisor is required on the finished thesis. It will then be examined by the of Undergraduate Studies Committee of the Mathematics Department. If the thesis is approved, the student will receive 1 credit under Math 48-900 (Undergraduate Thesis).

If approved by this committee, the Thesis will fulfil the requirements for the citation of "Graduation with Senior Thesis."

While there is no stipulation concerning the minimum number of pages for this work, the Thesis should demonstrate a mature understanding of its subject, and should be a logical and articulate presentation of the topic chosen.

The student should choose an advisor from the Mathematics faculty before, or during, the first semester of the junior year, and develop, with this faculty member, a list of readings required for the thesis, as well as a clear idea of the topic. It is generally expected that by the beginning of the second semester of the Junior Year, the student will have announced to the Director of Undergraduate Studies that he or she plans to write a Thesis, and provide the name of the faculty advisor.

Finally, students will present their work, in the form of a 30-minute seminar talk, on a day chosen by the Director of Undergraduate Studies between April 15 and the end of classes of the last semester. The last Saturday of classes seems to be an ideal date.

¹This is similar to the senior thesis for honors mathematics majors