

## Honors Thesis Guidelines in the Department of Mathematics

Honors Students with majors in the Department of Mathematics write Honors Theses on topics of advanced mathematics, topics that are beyond the material presented in the Department of Mathematics' undergraduate course offerings. Theses may contain original research, but they need not.

Honors Students in mathematics traditionally write their theses during their final undergraduate semester, while they are enrolled in MATH 4999, the Department of Mathematics' Honors Thesis writing course. They receive advice on writing their theses from their Thesis Mentors, faculty members chosen by Students from among the faculty members in the Department of Mathematics. Thesis Mentors are also responsible for formally approving theses once they've been successfully completed. The Honors Faculty Advisor and the Chair of the Department of Mathematics also have to formally approve theses.

As a timeline for completing a thesis, an Honors Student enrolled in MATH 4999 should submit a current draft of their thesis to the Honors Faculty Advisor six weeks before the final day of classes for that semester, a final draft to their Thesis Mentor four weeks before, and a completed thesis, with the approval of their Thesis Mentor, to the Honors Faculty Advisor two weeks before. Theses approved by the Honors Faculty Advisor will be forwarded to the Chair of the Department of Mathematics for the final approval required from the Department.

Before enrolling in MATH 4999, Honors Students will have to learn a substantial amount of mathematics to be included in their theses. This can be arranged formally, through independent reading courses, or REU's, etc. but it can also be informal.

To ensure that an Honors Student is well positioned to succeed in the year-long process of preparing for and writing their thesis, an Honors Thesis Proposal Form is required to be signed by September 15 for expected enrollment in MATH 4999 in a Spring semester, May 19 for Fall, and January 20 for Summer. These are deadlines for approval by the Honors Faculty Advisor, rather than deadlines for submission of an Honors Thesis Proposal Form. Students should be in discussions with their Thesis Mentor and the Honors Faculty Advisor about the topic of an appropriate thesis about a year before their expected graduation date, about eight months before enrolling in MATH 4999.

Students enrolled in Math 4999 receive course credit, and a course grade, but there are no official class meetings, no homework, or exams. The only work in MATH 4999 that is expected from students is writing their thesis with the guidance of their Thesis Mentor.

The quality of mathematics Honors Theses has improved in recent years. In particular, please be careful in comparing a thesis being written to a thesis from a previous year. Please ask the Honors Faculty Advisor for advice if there are any concerns about the expected quality of a

completed Honors Thesis. As for expectations of length, the body of a thesis should be between 20 and 50 pages.

Most important, Thesis Mentors and the Honors Faculty Advisor are excited about helping Honors Students with their theses. Please don't hesitate to ask for help with any part of preparing a thesis.