

Mathematics Department
Elon University
Honors Thesis Guidelines
October 20, 2008

What the Thesis should look like – The Honors Thesis in Mathematics should be similar to a mathematics Senior Seminar project, just much more and deeper. A paper on the order of 20-25 pages should be considered a minimum. It will normally be based on an article from a moderate level mathematics journal or a mathematical question. About a third to a half of the paper would be a synopsis of the article or a review of the background on the question, showing a clear understanding of the material, and using outside sources when needed. The rest of the paper would be work that branches in some form from the article and is developed by the student, as opposed to being garnered from other sources. This could take the form of an extension or extensions of the results, application of the technique to a different situation, answering a similar or related question or questions, or some combination.

How the mentor is chosen – The student will approach the mathematics faculty member as it is currently done for Senior Seminar. The department feels that each faculty member can make a choice of whether he or she would be able to be a capable mentor for the chosen topic at the advanced level of an Honors Thesis.

How the Honors Thesis fits in with MTH361: Senior Seminar I – The department decided that it would be in the best interest of the mentor and mentee to have them for the spring Senior Seminar class in addition to the Honors Thesis credits. The peer review and feedback is invaluable and the department feels it needs to be maintained.

Timing – Ideally, the student will start in the fall (2 hours) of the junior year, and then complete most of the work in the spring of the junior year (4 hours). The student would then finish in the fall of the senior year (2 hours). In general, we foresee this being the optimal format.

Mathematics Education – An Honors Thesis in Mathematics Education will not count towards a project in the mathematics Senior Seminar because of the significant difference in research focus. A Mathematics Teacher Licensure student may complete a field-based Honors Thesis in Mathematics Education, using a social science model that includes the following sections: Introduction, Rationale, Survey of Literature, Methods, Findings and Conclusions. Such a project might involve an experiment dealing with pedagogy or learning styles or a case study, and it can be an offshoot of a much more limited study conducted in an earlier education class or practicum. A thesis of this type should be approximately 40-50 pages, not including the bibliography. It should use APA documentation and represent sophisticated research methods and writing style.