Departmental Honors

Undergraduates majoring in mathematics can earn a bachelor's degree with College Honors in Mathematics if they participate in the University Honors Program graduating "With Honors", or if not enrolled in the University Honors Program they may graduate with Departmental Honors in Mathematics graduating "With Distinction".

In either case, the department requirements are as follows:

1. Must complete a B.S. Mathematics Degree.
2. Must satisfactorily complete at least one three-quarter sequence 402-3-4, 424-5-6 or 441-2-3; or two two-quarter sequences from this list. Exceptions must be approved by the chair of the Departmental Honors Committee.
3. Must obtain a GPA of 3.5 or better in the mathematics course offered for the degree.
4. Must write a senior thesis; see below.

Senior Thesis

Nature of the thesis. The senior thesis shall be an expository account of a topic in pure or applied mathematics related to the student's area of interest. (Original results or proofs are welcome but are definitely not expected.) The thesis must contain some nontrivial mathematical arguments. (E.g., a non-technical essay on "fractals in nature" would not be acceptable.) The thesis should normally be about 20 to 30 pages in length (double spaced, Times New Roman 12pt font, 1" margins). These figures are guidelines, not rigid requirements. The topic should be something that cannot simply be read out of a standard textbook. Writing the thesis should involve:

(a) obtaining material from the periodical literature, or
(b) consulting several books and synthesizing material from them, or
(c) reading an account of a topic in a book that is substantially more advanced than the student's regular coursework, digesting it, and putting it into readable form.

Choosing a topic. Finding a topic is the students' responsibility, although consultation with faculty members is encouraged. The topic must be approved by a faculty member of the Mathematics Department who will supervise the work (the "supervisor") and by the chair of the Departmental Honors Committee. A Senior Thesis Topic Proposal form can be obtained from the Student Services Office, and should be filled out and signed by the student and the supervisor. *The **signed** topic proposal must be submitted to the chair of the Departmental Honors Committee no later than the end of the first week of classes the quarter preceding the quarter in which the student expects to graduate.* Exceptions to this deadline may be granted only by the chair of the Departmental Honors Committee. Students contemplating writing a thesis are strongly encouraged to start thinking about a topic in the autumn quarter of their senior year.

Writing the thesis. The student must register for Math 496 (Honors Senior Thesis) during the last quarter of thesis work. The student may receive three credit hours of W-course credit for writing the thesis. Normally, the students will register for a reading course (Math 498) with the supervisor

during the preceding quarter (s). The student will receive three hours of credit for each of these courses, but in exceptional cases, with the approval of the supervisor, the number or credit hours may be increased. The supervisor may allow the student to replace Math 498 with a suitable topics course; however, it is still expected that the student will meet periodically with the supervisor.

Approval of thesis. The student shall submit a draft of the thesis to the supervisor for comments and criticisms, and then shall submit a final version with appropriate revisions. The supervisor shall read the thesis and certify its acceptability with respect to both content and exposition. In order to ensure sufficient time for these things, the student must submit the first draft no later than three weeks before the last day classes of the quarter in which the student expects to graduate, and the final draft no later than the last day of classes. Exceptions to these deadlines may be granted only by the chair of the Departmental Honors Committee.

Once the thesis has been approved, you will need to email the document to advising@math.washington.edu (required) as well as submit it to the ResearchWorks archive, part of the University Libraries (optional but strongly recommended). Submission to the archive will allow your thesis to be included in the dissemination and preservation of scholarly work. Your thesis will be made publicly available; visit the archive access policy for more information.

Interdisciplinary theses. Theses which are concerned with the application of some part of mathematics to some others field are acceptable, as long as they contain some substantial mathematics. In exceptional cases the student may wish to work most closely with a faculty member in another department in preparing the thesis. However, in such cases the thesis topic and the thesis itself must still be approved by a member of the Mathematics Department.

Revised 5/2017

Senior Thesis Topic Proposal

Please read the flyer titled "Departmental Honors" for information on choosing a thesis topic and writing a thesis.

Name: _____

Expected graduation date (QTR/YEAR): _____

Are you in the College Honors Program? ☐ YES ☐ NO

Supervisor's Name: _____

Thesis Title: _____

Short description of what you plan to include in the thesis:

_____

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By signing this form, both the student and the supervisor indicate their understanding that the following

deadlines must be met in order for the thesis to qualify for a degree with College Honors or with Departmental

Honors in Mathematics. Exceptions to the deadlines may be granted only by the chair of the Departmental

Honors Committee.

1. Signed topic proposal must be submitted to the Departmental Honors Committee by the end of the first week of classes of the quarter preceding the student's final quarter.
2. First draft of thesis must be turned in to the supervisor three weeks before the last day of the quarter in the student's final quarter.
3. Final thesis must be turned in to the supervisor by the last day of the quarter in the student's final quarter.
4. Once approved, you are required to email your thesis to advising@math.washington.edu and we strongly encourage submitting the document to the University Library Archive.

_____   _____

Student Signature   Date   Supervisor's Signature   Date

_____

Honors Chair Signature   Date

Please return this form to the Math Student Services Office, Padelford C-36.

For office use:
Enrolled in   MATH 498 ☐   MATH 496 ☐
DARS updated ☐   **Thesis received ☐ Approved ☐**