

Departmental Honors in Mathematics and Statistics

The Departmental Honors Program in Mathematics and Statistics provides a formal outlet for intellectual curiosity in the talented mathematics student. It provides such students with a special course of study that will challenge them and allow them more independence in their intellectual pursuits.

The Undergraduate Committee is responsible for oversight and administration of the Honors Program in Mathematics and Statistics; it may choose to delegate any portion of that responsibility to one or more individuals, either faculty or staff. Someone must be designated to receive and handle Honors Program applications; that person is referred to as the Honors Advisor. By default the Chair of the Undergraduate Committee will serve as Honors Advisor.

ELIGIBILITY

To qualify for entry to the Honors Program, a student must

- (i) have at least junior standing,
- (ii) have completed at least four MTH or STT classes numbered 2800 and above, and have a GPA of at least 3.3 in those classes, and
- (iii) have a willing faculty sponsor.

A student who does not meet these requirements may petition the Undergraduate Committee for entry to the Honors program; such a petition must demonstrate that the student has sufficient talent and dedication to complete an Honors project.

APPLICATION

A student must meet the eligibility requirements at the time of application. The student must write a letter of application to the Honors Advisor (who shall convey it to the Undergraduate Committee) stating a desire to undertake a Departmental Honors project, and proposing in detail how the project will be carried out. In particular the student must verify eligibility, list all classes to be taken in the project, and give the name of a willing faculty sponsor.

In the case of an independent study project, the sponsor must be the person responsible for the independent study course and grade. In the case of graduate coursework, it is suggested that the sponsor be someone teaching a graduate course that the student will take, but this is not required.

PROJECT OPTIONS

The Honors project may consist of either of the following:

- (a) An independent study project resulting in a written project report.
- (b) Completion of at least two graduate level courses with a grade of A or B.

Details for each option are given below.

INDEPENDENT STUDY

In option (a), the student must take at least six (6) credits of MTH 4880, MTH 4910, MTH 4920, STT 4860, and/or STT 4920*. The coursework must take place over at least two semesters. This coursework should result in a high-quality project report of significant length. An independent study project must in the judgment of the faculty sponsor involve some form of independent investigation as opposed to passive learning. As a guideline, any project that qualifies as “undergraduate research” would certainly qualify. Due to the nature of mathematical research this requirement needs to be applied judiciously. But a project that is strictly a reading course would not generally qualify to be an Honors project.

If MTH 4910, MTH 4920, or STT 4920 is included in the coursework counted toward the Honors project, the student must meet all the requirements of that course, while continuing work on their project. Alternatively the student may choose to complete this graduation requirement separate from the Honors project.

GRADUATE COURSEWORK

In option (b) the student will take at least two graduate level courses at the 7000-level*. In order to pursue this option the student must have completed the prerequisite undergraduate sequence (as determined by the Honors Advisor) with an average grade of at least a B. (For example, in order to take MTH 7310, the student should have taken MTH 4310 and MTH 4320, with at least a B average.)

The Honors Advisor will assist the student in obtaining the necessary permission to register for these courses.

*NOTE ON QUARTER TO SEMESTER TRANSITION

Students beginning a Senior Thesis during the quarter system can register for credits the quarter equivalent of the courses mentioned above, e.g., MTH 488 for MTH 4880, MTH 731 for MTH 7310, etc. Satisfactory credits earned in these courses under the quarter system will count toward the requirement for their Senior Thesis under the semester system.

REVISION AND EARLY TERMINATION

The student may propose revisions to the Honors project once approved. The Honors Advisor with the advice of the faculty sponsor will consider such revisions and approve them or not.

Ordinarily an Honors project once begun will continue until its scheduled completion. However any of the following will result in early termination of the project.

- A grade of C or below in a course that is part of the project.
- Failure to take a course as scheduled in the proposed project without advance revision.
- A request by the student or the faculty sponsor that the project be terminated.

COMPLETION

At the completion of the proposed program of study, the Honors Advisor with the advice of the faculty sponsor will determine if the student has satisfactorily completed his Departmental Honors project, and if so will notify the University Honors Program.