PhD Degree Requirements

Overall:

Satisfy the requirements for a doctoral degree as laid out by the UW Graduate School.

Residence:

Three years of full time study, two of which must be at the University of Washington.

Courses:

Courses must include two three-quarter sequences from the department’s list of core graduate courses. The list of core courses includes MATH 504, MATH 505, MATH 506; MATH 524, MATH 525, MATH 526; MATH 534, MATH 535, MATH 536; MATH 544, MATH 545, MATH 546 (but see the experiment below). A student may substitute a passing performance in a preliminary examination for satisfactory completion of the corresponding designated core course. Courses must include twelve 500-level numerically graded courses in Mathematics, Applied Mathematics, or Statistics. Courses from other departments may be included in the total with approval of the Graduate Program Coordinator.

Preliminary Examinations:

Pass two preliminary exams (but see the experiment below). These exams, four hours in length, are offered every September in the mathematical subjects treated by the designated core courses. Currently, these subjects are algebra, real analysis, complex analysis, and topology and geometry of manifolds. At least one of the preliminary examinations must be in algebra or topology and geometry of manifolds.

A student may substitute completion of a full three-quarter sequence of a designated core course, in which grades of 3.8 or above are received each quarter, for the passing of the corresponding preliminary exam. Only one such exam can be replaced in this manner.

2019-2020 Experiment:

In 2019-2020 we will run an experiment where instead of two Analysis sequences — Real Analysis and Complex Analysis, we’ll have a combined Analysis sequence. Therefore, Math 535 and 536 will not be considered core classes. Math 526 will not be offered this year. Consequently, in September 2020 only three preliminary exams are likely to be offered.

Foreign Language/Computer Requirement:

Pass either one foreign language exam or computer programming exam. A PhD student is expected to pass the language or computer exam by the end of Summer quarter after the third year.

General Examination:
An oral examination on a special area of intended research, given by a committee after the student has passed the preliminary exams and the language exam. This exam can be given only after two years of graduate study. Normally, it should be taken by the middle of the student's fourth year. In addition, the student will prepare a written General Paper and distribute it to the committee at least two weeks before the date of the General Exam. The content of this paper is decided upon in consultation with the committee. For example, this might be a 10-20 page expository account of the student's research area, culminating in a problem or list of problems to be studied, together with a discussion of some of the relevant literature.

**Thesis:**
An original contribution to knowledge. 27 credits of Math 800 required over a period of at least three quarters.

**Final Examination:**
An oral exam given by a committee headed by the thesis supervisor.

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