

Official Requirements and Guidelines for the Ph.D. in Mathematics

Approved by the Boston College Graduate Educational Policy Committee, October 26, 2009.

The requirements for the Ph.D. fall into five categories:

1. Residency
2. Coursework
3. Exams
4. Teaching
5. Dissertation

1. RESIDENCY: A student must be in residence in the Mathematics Department at Boston College for at least two consecutive semesters of one academic year with full-time registration. Full-time is 2 courses per semester. This is a Boston College GSA&S regulation.

2. COURSEWORK: Students must complete at least 50 credit hours at the graduate level, including all courses in Year 1 in the table below, and receive a grade of B- or higher in at least 44 of these. Typically, students will take 6,4,4 three-credit courses in years 1,2,3, respectively, as well as the one-credit seminars in teaching or research. Up to 18 credit hours of this requirement may be waived for students with prior graduate work, upon approval of the Graduate Vice Chair. Students with prior comparable course work may also be exempted from one or more of the first year graduate courses, upon approval of the Graduate Vice Chair.

A typical course schedule

Year	Fall	
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Course descriptions

Real Analysis: Measure Theory, Hilbert Space and Fourier Theory. Possible topics from: Lebesgue measure starting on \mathbb{R} , convergence and Fubini theorems, generalizing to locally compact spaces and groups.

Complex Analysis: Local and global theory of analytic functions of one variable.

Algebra I, II: Group Theory (Group actions, Sylow, Nilpotent/Solvable, s

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M.A. Degree

Students enrolled in the Ph.D. program who receive at least an M.A. pass in two of the three preliminary exams and pass at least 30 credits of math graduate courses, including at least five semesters of the first-year graduate courses in Real and Complex Analysis, Algebra, and Topology, will receive an M.A. degree. Advanced undergraduate courses may count towards the 30 credits in meeting the M.A. requirement with the permission of the Graduate Vice Chair. Students who skip a first-year course because of advanced preparation may substitute more advanced courses in any area, with the permission of the Graduate Vice Chair. A student may receive an M.A. and continue on to a Ph.D. provided the student meets the Ph.D. requirements above.