

# MATHEMATICS - DOCTOR OF PHILOSOPHY (PHD)

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The Department of Mathematics offers coursework and research leading to the PhD degree in mathematics. The department has a diversified graduate faculty with current areas of research in algebra, classical analysis, differential equations, geometry, harmonic analysis, logic and foundations, number theory, probability and stochastic processes, and topology.

For more information, visit the Department of Mathematics (<http://www.colorado.edu/math/>) website.

## Requirements

### Admission Requirements

Applicants must have demonstrated mathematical maturity and accomplishment roughly at the level of a successful mathematics major at CU Boulder. Applicants must also demonstrate mathematical potential: success in courses in advanced calculus and abstract algebra help demonstrate this potential. General and mathematics GRE subject scores are required for PhD students.

### Degree Requirements

Students must complete at least 30 credit hours of approved graduate coursework and 30 credit hours of thesis work.

Before being admitted to candidacy for the PhD degree in mathematics, a student must take two graduate courses each in algebra, real analysis and geometry/topology en route to passing two out of three preliminary exams in these fields. In addition, the student must take a course in complex analysis. The student must then pass a comprehensive exam.

Students should read the Doctoral Degree Requirements (<https://catalog.colorado.edu/graduate/degree-requirements/doctoral-degree-requirements/>) section carefully. The student is responsible for satisfying these requirements at the proper time.