

The Concurrent AB-AM Degree Program

The Mathematics Department offers a concurrent AB-AM degree which allows students who are primary mathematics concentrators (or have an equivalent, very strong mathematics background) to obtain a master's degree (AM) in Mathematics in addition to their bachelor's degree (AB) during their four years at Harvard.

The program: The program is open to primary Mathematics concentrators who have demonstrated advanced mastery of undergraduate mathematics. On rare occasions, the program will also accept Harvard undergraduates from other concentrations with equivalent, advanced mathematics background.

The formal requirements for the Mathematics AM degree are as follows:

- Minimum academic residence at Harvard of one year.
- Eight half-courses in Mathematics at the 100 or 200 level with at least four at the 200 level. These courses must be letter graded and the cumulative grade average in these eight courses must be B+ or higher.
- A reading knowledge of one of three languages—French, German, or Russian.

Allocating courses: With regards to the eight required courses for the AM degree: Four graduate level (200 level) Mathematics courses must be allocated for use solely towards the AM degree requirements; and four other Mathematics courses (100 or 200 level) can be allocated for use simultaneously towards both the AM degree requirements and the Harvard College AB degree requirements. (The courses allocated solely towards the AM degree requirements can not be used for Harvard College AB degree requirements, nor for Mathematics Concentration requirements or requirements for any other concentration.) Up to four graduate level courses taken before the fourth year can be allocated for either sole AM use or joint AB-AM use. Candidates for the AB/AM degree must allocate these courses by the start of the final term before graduation.

Advising: Students in the AM program will be assigned an academic advisor from the Mathematics faculty for their fourth year at Harvard. In this regard, Mathematics concentrators can retain their Mathematics faculty concentration advisor.

Application process: Students seeking admission to the AB/AM program in Mathematics must submit to the Mathematics Department by November 21 of their third year a detailed, coherent plan for courses of study in Mathematics covering a broad swath of mathematics that goes significantly beyond the level required for the undergraduate concentration in Mathematics. This plan should also detail (in separate paragraphs) the students long term goals after Harvard and how the AM degree in Mathematics and the specific courses in the plan of study facilitate the

attainment of these long-term goals. The full plan must be approved by the Directors of Graduate Studies and Undergraduate Studies in Mathematics before admission to the AB/AM program can be approved. After submitting the plan of study, students must apply for admission to the AB/AM program through the Graduate School of Arts and Sciences by the Graduate School's stated deadline (which is typically in the middle of December). This application is much like a Ph.D. graduate school application; in particular, letters of reference are required. More about what is needed in the application can be found at this website: <https://gsas.harvard.edu/admissions/apply>

Timeline and deadlines: Students interested in pursuing the AB-AM degree should take note of the following timeline.

- Students must submit to the Mathematics Department by November 21 of their third year a detailed, coherent plan for courses of study covering a broad swath of mathematics that goes significantly beyond the level required for the undergraduate concentration in Mathematics. This plan must be approved by the Directors of Graduate Studies and Undergraduate Studies in Mathematics before admission to the AB/AM program can be approved.
- In the fall of their third year, students should apply for admission to the AB/AM program through the Graduate School of Arts and Sciences by the Graduate School's stated deadline (which is typically in the middle of December). This application is just like a graduate school application, and requires reference letters amongst other things. Details on the application can be found at <https://gsas.harvard.edu/admissions/apply>.
- Acceptance notices are given in the winter by the GSAS admissions office. If accepted, students can take the language exam in the spring of their third undergraduate year, or during their fourth year.

Word of warning: The AM program in Mathematics requires at minimum four additional courses in mathematics beyond the standard Mathematics concentration requirements because at most four of the eight courses for the AB degree can be used for both the AB degree requirements and the AM degree requirements. As a consequence, the consensus recommendation is for students to forgo this program and take advantage of the many other academic opportunities that the University offers in their fourth year. Note also that a student considering going on to graduate school in mathematics or a closely related field should bear in mind that the AM degree will not offer an advantage in that regard.

For more information: Further details on the application process are available at the GSAS website at <https://gsas.harvard.edu/programs-of-study/all/mathematics> and from the Graduate Studies Coordinator Marjorie Bell (mbell@math.harvard.edu). For questions on bracketing courses and whether it makes sense for you to apply to this program, please contact the Director of Undergraduate Studies, Professor [Laura DeMarco](#).