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Dear Prospective Students:

We would like to share with you some basic information about MIT's undergraduate major in mathematics.

1. Flexibility. Mathematics is the largest major in the School of Science and the third largest major at MIT, with approximately 130 students per year. Math majors are a diverse group in which you are likely to find other students with interests and ambitions similar to your own. We have degree options in pure mathematics, applied mathematics, and mathematics with computer science. Many of our students are double majors, taking second degrees in a variety of subjects, including Electrical Engineering and Computer Science, Physics and Economics. Our majors pursue many different directions after graduation, in either academia or the private sector. While the statistics vary appreciably from year to year, they generally look something like this:

- 20% graduate school in mathematics

- 30% graduate school in other (e.g. Computer Science, Physics, Economics, Engineering)

- 20% financial sector

- 10% consulting

- 10% software engineering

- 10% other (e.g. law school, medical school, travel, work for a non-profit)

2. Academic excellence. We are privileged to have the strongest and most decorated group of math majors in the country. Our students do extremely well when applying to graduate schools and MIT has dominated the national William Lowell Putnam Mathematical Competition. The Putnam results this year are the most dominant by any university ever: All 5 "Putnam Fellows" – the top ranked individuals – are from MIT, 9 of the "Next 11 Highest Ranking Individuals" are from MIT, 8 of the next 12 are from MIT, MIT was the winning team, and a "Elizabeth Lowell Putnam Prize" (the highest scoring women) went to an MIT student. In all, 570 institutions participated and a remarkable 22 of the 28 highest scores are from MIT students. An MIT student often wins the Mathematical Association of Americas Morgan Prize for undergraduate research. Recently, a number of our undergraduate women has been awarded, or received honorable mention for, the Alice T. Schafer Prize for Excellence in Mathematics.

3. Freedom in course selection. The choice of courses is extremely flexible, reflecting the breadth of interests of our students and faculty. Some students take 18.01 or 18.02 as first semester freshmen. Some students start with more advanced courses, in analysis (18.100) or algebra (18.700 or 18.701). Whatever the entry point, students can quickly advance to higher-level courses in number theory, algorithms, physical applied math, combinatorics, topology, differential equations, functional analysis, algebraic geometry, and many other subjects. It is not unusual for students to take at least one graduate course in the their time here. All MIT undergraduates are required to take two courses in their major with a focus on communication. The Mathematics Department has the broadest

selection of such Communication Intensive (CI) courses of any major. Some header courses in the department have CI versions: 18.100P and 18.100Q, Analysis (as are also popular among EECS majors) and 18.200, Introduction to Discrete Applied Mathematics. We also offer CI courses in the form of Undergraduate Seminars, roughly ten of which cover a wide range of subjects, and give our students valuable experience in the written and spoken expression of mathematics. Students may simultaneously fulfill the Institute Laboratory Requirement by taking the Mathematics Project Laboratory, 18.821, another CI course. The Project Lab is arranged such that teams of three students, under faculty supervision, conduct mathematical research in three of some forty project areas, write a paper on each subject, and give a talk on one.

4. Our faculty. MITs Department of Mathematics is often ranked first among graduate programs in the country. Its faculty and graduate students conduct research of the highest caliber. Undergraduates may share in the excitement of this cutting-edge research through both their courses and through contact with their faculty advisor. They may contribute to our departmental research efforts through the Undergraduate Research Opportunities Program (UROP), as well as a number of other research programs such as the SPUR summer program.

We are delighted that you are considering a major in mathematics. The Mathematics Academic Services Office in 2-110 is an excellent resource, so please feel free to contact them for further information.

Sincerely,

William P. Minicozzi II