**What calculus course should I take?**

The Department of Mathematics and Statistics offers several different versions of calculus at Level I. The courses vary depending on the level of preparation that they require, the intended audience for the course, and the possible paths after completing the course. Read the following descriptions carefully, as it can be difficult to recover from starting in the wrong course.

**Math 1A03 — 1AA3** This two-semester sequence is called Calculus for Science. The course assumes that you have taken Grade 12 Calculus&Vectors, and that you remember it reasonably well. If you anticipate that you may want to take more advanced courses in mathematics (and are not required for some reason to take another sequence), this is the sequence that you should take.

**Math 1F03** This one-semester course is designed to be essentially the same as Grade 12 Calculus&Vectors. You should take this course if you did not take the high-school course, and you want to take further math courses at McMaster.

**Math 1K03** This one-semester course covers some of the functions and calculus portions of the two Grade 12 math courses Advanced Functions and Calculus&Vectors. It is intended for students who took neither of those two courses, and need to take a university-level calculus course. The focus is on the study of functions which are relevant in the social sciences; in particular, trigonometric functions are not included. If you plan to take Math 1M03 after this course, you need to get a sufficiently high grade, as 1K cannot cover all the prerequisite material required. You may take Math 1F03 after Math 1K03 to improve your preparation for further math courses.

**Math 1LS3 — 1LT3** This two-semester sequence is called Calculus for the Life Sciences. The course assumes that you have taken Grade 12 Calculus&Vectors, but there will be a lot of review of this material at the beginning of the course. You should take this course if you are required to take a university-level calculus course and you do not plan to take more advanced mathematics courses. This course is accepted as a prerequisite for more advanced courses in mathematics, but it is not recommended. If you think you will want to study more math, you will be much better prepared by taking the sequence Math 1A03-Math 1AA3. In particular, there are many topics which will be assumed in the subsequent course Math 2X03 that are not covered in Math 1LT3.

**Math 1M03** This one-semester course is called Calculus for the Social Sciences. The course assumes that you have taken Grade 12 Calculus&Vectors, but there will be a lot of review of this material at the beginning of the course. The focus is on the study of functions which are relevant in the social sciences; in particular, trigonometric functions are not included. If you plan to take Math 1AA3 or Math 1LT3 after this course, you need to get a sufficiently high grade, as 1M cannot cover all the prerequisite material required. If you think you will want to study more math, you will be much better prepared by taking Math 1A or Math 1LS.
**Math 1X03 — 1XX3**  This two-semester sequence is called Calculus for Math&Stats. If you are registered in Level I Math&Stats you are required to take this sequence. If not, you have to ask permission. The course assumes that you have taken Grade 12 Calculus&Vectors, that you did reasonably well in it, and that you remember it reasonably well. It also assumes that you want to learn more about mathematics — not just how to do the calculations, but why that is the right way to do the calculations. If you are interested in pursuing a degree in Math&Stats, this is the right sequence to take. The list of topics covered is the same as Math 1A03-1AA3.

**Math 1ZA3 — 1ZB3**  This two-semester sequence is called Engineering Mathematics. If you are in an engineering program, you are required to take this sequence. If you are not in an engineering program you are not allowed to take this sequence. If you are transferring into or out of engineering, this sequence is essentially identical to Math 1A03-1AA3.