- Course Website: All the information below, and more, is available at the course website. Just go to http://www.math.toronto.edu/cms/courses-2/ and click on MAT133Y.
- There will be no other paper handouts after this one. Students are expected to keep track of course announcements on the MAT133Y website. This includes quiz schedules, test and exam announcements, suggested homework problems, and all other news. It is imperative that you familiarize yourself with this site immediately.
- Brief Course Description: MAT 133Y is an introductory survey of some basic theory and applications of Calculus and Linear Algebra. Topics covered include: minimizing and maximizing continuous functions of one or more variables; modeling; numerical methods; and matrix methods. In addition, there will be an introduction to techniques of integration. Most applications will be of an economic nature e.g. minimize cost, maximize profit, etc. but many assigned exercises will be purely mathematical. The course begins with an introduction to financial mathematics.

Prerequisites: MCV4U and MHF4U

Lecture Sections:

L0101, A. Igelfeld	MTR 12-1	MP 103
L0201, D. Reiss	M 1-2	MB 128
	W 12-2	SS 2118
L0401, A. Igelfeld	T 10-12	MP 102
	R 10-11	MB 128
L0501, J. Tate	W1-4	BR 200
L5101, J. Tate	M6-9	MS 3154
L5201, L. Shorser	TWF5-6	MP 203

Required Textbooks:

- Introductory Mathematical Analysis, 13th edition, by Haeussler and Paul, may be purchased from the Text Book store, with or without A Student Solutions Manual.
- The *Instructor's Solution Manual* is available on short-term loan (in the library only) at the Gerstein Science Information Centre.
- The problem and section numbers do not correspond completely to older editions. Be careful.

In addition, you will need:

• MAT 133Y Supplementary Material, and Harder Questions and Solutions by Members of the Math. Dept. available for FREE on the MAT133Y website. On

the same site are old term tests with solutions, as well as old final exams without and with solutions.

The Harder Questions and Solutions are keyed to the 13th edition of the text book. Older versions may be confusing.

• NB: The one and only calculator you will be permitted to use on quizzes, tests, and exams is the TI-30XIIS. NO OTHER CALCULATOR OF ANY KIND WILL BE PERMITTED.

Available in the Text Book Store or elsewhere.

Tutorials: MAT133Y students must register in one Tutorial section. It is easy to register for Tutorial through the Faculty of Arts and Science registration procedure. (These are the T-sections.) This can be done up to the end of the second week of classes on September 20. If you have not managed to register for tutorial, either because all tutorials were full, or because the deadline has passed, you must see the course coordinator, A. Igelfeld to get a tutorial. Any changes to your tutorial section after the second week of class must also be done through A. Igelfeld and NOT through a registrar.

Be prepared for some possible minor changes of location (not time) of your tutorial during the third week of the Fall Term.

After the first two weeks, you will not be allowed to switch unless you can demonstrate a course time-table conflict to A. Igelfeld in BA 6252 during his office hours.

Tutorials start Monday, Sept. 18, and run until Friday, December 1, in the first term. They resume (don't ask why) Monday, January 8, in the second term. Tutorials meet one hour per week and are given mostly by graduate students. Tutorials are your chance to ask questions about the homework problems. In addition, quizzes will be written in tutorial, and tests will be returned and taken up there.

If you want help before Sept. 18, there will be TAs in the Math Aid Centre in the second and third weeks of class at hours posted on the MAT133 website (see **Math Aid Centres** below).

Course Outline: A course outline, containing all assigned homework problems, and information about textbooks and materials, is available on this site.

Term Tests: There are three two-hour term tests:

- Test 1: Tuesday, Oct. 31, 2017, 6:10 8 PM
- Test 2: Tuesday, Jan. 16, 2018, 6:10 8 PM
- Test 3: Tuesday, March 6, 2018, 6:10 8 PM

None of the term tests are during class time; *all* students will be expected to write the same test at the same times. Arrangements will be made for students with a regularly scheduled U of T class during the above times.

Marking Scheme: Your final mark in MAT 133Y is based on the following:

Final Exam, 50%: To be scheduled by the Faculty of Arts and Science during the period April 9-30.

Term Tests, 40%: All 3 term tests are equally weighted. There will be no make up tests. A student presenting proof of a valid reason for missing a test (see the section on Missed Term Tests in the Rules and Regulations section of the Faculty of Arts and Science 2017-2018 Calendar) will have their mark adjusted at the end of the course by a factor depending on the ratio of their test marks to the class average on the tests which they have written and the class average on the unwritten test. In the unlikely event that there are two VALID medical excuses, this procedure will not be followed. Students in this circumstance will have their mark depend 75% on the final exam. In the past, almost every student who has purported to be in this situation has failed the course due to a very low mark on the final exam. BE WARNED!! It is strongly advised that you write all 3 term tests.

Presenting a false medical excuse is a severe offence and will be dealt with through the Office of the Dean of the Faculty of Arts and Science. Medical notes will be accepted ONLY from MDs with a valid CPSO number.

Tutorials, 10%: The tutorial component of your final mark will be based on quiz results. There will be a quiz every week in tutorial, except the first and last, tutorials, the week of a term test, and the week following. Only the best 10 of your quizzes will be counted. The quiz questions will be taken from the Homework Problems, one question per quiz, marked zero or one. Students will be informed in a quiz schedule on the MAT133Y website about which Homework Problems you are responsible for in a given week.

You must write your quiz in the tutorial for which you are registered, in the room to which you have been assigned, or your mark will be recorded as zero.

Calculators: Calculators are needed in various parts of the course.

• NB: The one and only calculator you will be permitted to use on quizzes, tests, and exams is the TI-30XIIS. NO OTHER CALCULATOR OF ANY KIND WILL BE PERMITTED.

Available in the Text Book Store or elsewhere.

The current edition of the textbook teaches many tricks that can be done on graphing calculators. You can try these, but note that none of them are required or allowed during quizzes, tests, and exams. Furthermore, when you are asked to write answers (as opposed to multiple choice) on tests and exams, explanations of what you are doing are required, and saying "my calculator says so" doesn't count as an explanation, not even for the right answer.

On a recent final exam in this course, 11 students were severely disciplined by the Faculty of Arts and Science (resulting in failure for several who would otherwise have passed) for bringing calculators with formulas written on them or on their covers or on paper inside the covers. The Dean's Office is taking all such activity very seriously and reacting severely. Please avoid such dire consequences.

Math Aid Centres: The main math aid centre is in PG101, which will be open for help during the academic year at hours to be announced. In addition, your college may offer some kind of math assistance.

Course Administrator: Consult Abe Igelfeld (office: BA 6252, phone: 416-978-4447), if you have problems with respect to tutorials, marking, class conflicts, etc.

Office Hours: Mondays and Thursdays 1:30-3:00 or by appointment.