

## MAT 133Y COURSE INFORMATION SHEET 2009-2010

**Course Website:** All the information below, and more, is available at the course website. Just go to <http://www.math.toronto.edu/courses/> 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, T. Bloom	M1-2, W1-3	BA1160
L0201, P. Kergin	M2, F1-3	RW110
L0301, A. Igelfeld	T10-12, R10-11	MP102
L0401, A. Igelfeld	MTR12-1	SS2102
L0501, J. Tate	W1-4	TZ6
L5101, J. Tate	M7-10	LM162

### Required Textbooks:

- *Introductory Mathematical Analysis*, 12th edition, by Haeussler and Paul may be purchased from the Text Book store. A Student Solutions Manual may also be bought there, if you wish, at a discount if you buy book and manual together.

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.

The Harder Questions and Solutions are keyed to the 12th edition of the text book. Older versions may be confusing.

**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 in September. If you have not managed to register for tutorial, either because all tutorials were full, or because the deadline has passed, you must see 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.

**Your tutorial assignment, and LOCATION, will be posted on the course website, by student number, by Friday PM, Sept. 26.**

Once the tutorial assignments have been posted, you will not be allowed to switch unless you can demonstrate a course time-table conflict to A. Igelfeld in BA 6252 during office hours.

Tutorials start Monday, September 28, and run until Friday, December 4, in the first term. They resume Monday, January 4, 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 September 28, there will be TAs in the Math Aid Centre in the second and third weeks of class at hours posted on the door of SS 1071 (see **Math Aid Centres** below).

**Course Outline:** A course outline, containing all assigned homework problems, is available on this site.

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

- Test 1: Tuesday, Oct. 27, 2009, 6:10 – 8 PM
- Test 2: Tuesday, Nov. 24, 2009, 6:10 – 8 PM
- Test 3: Tuesday, March 2, 2010, 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 7 – 23, 2010.

**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 page 536 of the Calendar of the Faculty of Arts and Science: Missed Term Tests) 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, the week of a term test, and the week following. Only the best 12 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:** You need a calculator that can handle exponentiation and natural logarithms. (A financial calculator would be useful for the first few weeks, but usually does not have enough scientific functions for the rest of the course.) Calculators are permitted during quizzes, tests, and exams. **Calculator memories must be empty going into quizzes, tests, and exams. NO GRAPHING CALCULATORS ALLOWED.**

The current edition of the textbook teaches many tricks that can be done on graphing calculators. You can try these, but 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.

**Math Aid Centres:** The main math aid centre is SS1071, which will be open for help during the academic year at hours to be announced. All information about your tutorials, quizzes, tests, and exams will be posted on the bulletin board outside SS1071 throughout the year and on the course website.

In addition, your college may offer some kind of math assistance.

**Reprise Program for MAT133Y:** Students who do poorly in the first two term tests are permitted to drop MAT133Y and take MAT123S in January 2010 and MAT124H in May 2010, but note that a mark of at least 20% on the second term test is required in order to be eligible.

MAT123S together with MAT124H is equivalent for program and prerequisite purposes to MAT133Y. There is no extra fee for MAT123S, but a fee for .5 course applies to MAT124H.

**ADMISSION TO BOTH MAT123S and MAT 124H IS BY PERMISSION ONLY.**

Please read **carefully** the information about these courses on page 342 of the 2009-2010 Faculty of Arts and Science Calendar and at <http://www.math.toronto.edu/courses/reprise.html>. Detailed information about these courses will be available later in the term.

**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.**