

University of Toronto Scarborough  
COURSE INFORMATION  
MATA31 – Calculus I for Mathematical Sciences

**Course homepage:**

<http://www.math.toronto.edu/lgoldmak/A31F12/>

**Instructor:** Leo Goldmakher

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Office hours: Tuesday 13:00–15:00 & Thursday 14:00 – 15:00; additional office hours by appointment.

**Lectures:** Tuesdays 17:00–18:00 & Thursdays 17:00–19:00 in IC 130

**Textbook:** R. Bartle and D. Sherbert, *Introduction to Real Analysis*, 4th edition, Wiley, 2011. It is important you have the correct edition of the book, since assignments and quizzes will correspond to the 4th edition.

**Syllabus:** Naive set theory, properties of the real numbers, sequences and functions, limits and continuity, differentiation, and (time-permitting) integration. Throughout all of this we will go beyond the surface technique and explore the mathematical underpinnings of the subject. In particular, one of the goals of the course is to get you thinking creatively and out of the box.

**Marking scheme:**

Your mark will be calculated based on several components:

1. Weekly problem sets – 30%

These are to be turned in within the first five minutes of your tutorial; late assignments will not be accepted under any circumstances. Your lowest score will be dropped before calculating the contribution to your final mark. Please note that numerical answers alone will not be given any credit, whether or not they are correct; you *must* show work to receive credit. Further note that *the marking scheme for the assignments is determined by your TA*. This means that questions about homework marks should be addressed to your TA, rather than to me.

2. Final exam – 30%
3. Two midterm tests – 15% each (i.e. 30% in total)
4. Quizzes – 10%

Quizzes will be given at the end of every tutorial. They will be short, and are meant as straightforward demonstrations that you've understood the reading. One of the primary purposes of the tutorial is discuss the reading – please make sure you come prepared with questions!

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## TUTORIALS

Tutorials will begin on Monday, September 17th. The TAs are only responsible for marking the homework and quizzes of those students officially enrolled in their tutorial. Homework and quizzes cannot be handed in except during your own tutorial.

## DISCUSSION SESSIONS

In addition to lectures and tutorials, I have reserved a room two days a week for students to meet and discuss material. You do not need to let anyone know in advance that you're coming – just show up! The sessions will take place on Mondays 17:00–20:00 and Wednesdays 17:00–20:00, both in IC 326.

## COMPUTER POLICY

Computers and phones are not to be used at any time in the lecture hall, as this is distracting both for you and for your fellow students. If you have something you need to do urgently on your computer or phone, take it outside the classroom and do it there.

## TEAM WORK AND PLAGIARISM:

The problem sets in this course will be challenging, and I encourage you to work together on them. However, **each student must work out and write up their final solutions individually and independently**. Please write up your problems sets in isolation from other students.

Although the internet is a great resource, I urge you to use it wisely. In particular, I ask you not to search for the problems appearing on the assignments. **Looking up definitions is OK, looking up problems is not.**

When using ideas which are not your own, please indicate your source. You will *not* be penalized for collaborating with another student unless:

- (1) your work is identical to that appearing elsewhere (again, write up HW in isolation!); or
- (2) you explicitly use an idea without attributing the source.

Both (1) and (2) may have serious consequences. See

<http://www.writing.utoronto.ca/advice/using-sources/how-not-to-plagiarize>

for further information.

## MISSED MIDTERM TEST:

Students who miss a midterm test for reasons entirely beyond their control may, within one week of the missed test, submit the instructor a written request for special consideration explaining the reason for missing the test, and attaching appropriate certification, such as medical certificate or a College Registrar's note. A student whose explanation is accepted will have their final exam weighted 10% more, and their quizzes 5% more, than the weights indicated above.

The academic regulations of the University are outlined in the Code of Behavior on Academic Matters which can be found at

<http://www.governingcouncil.utoronto.ca/policies/behaveac.htm>