

**DEPARTMENT OF MATHEMATICAL AND COMPUTATIONAL SCIENCES
UNIVERSITY OF TORONTO MISSISSAUGA**

**MAT232H5F LEC0101
Calculus of Several Variables
Course Outline - Fall 2018**

Class Location & Time	Tue, 01:00 PM - 03:00 PM IB 235 Thu, 01:00 PM - 02:00 PM IB 335
Instructor	William Weiss
Office Location	DH-3042
Office Hours	
E-mail Address	william.weiss@utoronto.ca
Course Web Site	https://q.utoronto.ca
Co-Instructor	Parker Glynn-Adey
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Co-Instructor	Huan Vo
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Teaching Assistant	Karishma Kailass
Teaching Assistant	Anastasia Loginova
Teaching Assistant	Amjad Mobayed Amjad
Teaching Assistant	Lu-Yin Wang

Course Description

Differential and integral calculus of several variables: partial differentiation, chain rule, extremal problems, Lagrange multipliers, classification of critical points. Multiple integrals, Green's theorem and related topics. [36L,12T]

Prerequisite: MAT134Y5/MAT135Y5/MAT137Y5

Corequisite: MAT223H5/MAT240H5

Exclusion: MAT233H5, MAT235Y1, MAT237Y1, MAT257Y1, MAT257Y5, MATB41H3 (SCI)

Distribution Requirement: SCI

Students who lack a pre/co-requisite can be removed at any time unless they have received an explicit waiver from the department. The waiver form can be downloaded from [here](#).

Textbooks and Other Materials

The textbook for the course, Calculus Early Transcendentals An Open Text, by David Guichard was edited especially for us. The syllabus of the course is basically the material in chapters 11, 12, 13, 14 and 16 of that text; the other chapters provide review of prerequisite material. It is available as part of the learning package from LYRYX. All MAT232F students must register on the LYRYX website for this course. Registration instructions are found here:

http://login.lyryx.com/unprotected-servlets/FDOC.pdf?c=LALG1_580

The form states that it is for LEC0101, but students from all lecture sections should use it. There is a fee of \$39.95 payable at the registration page.

Some students like to use more than one text, but this is **not required**. However, for those that would like a second text, I would recommend Multivariable Calculus, 7th or 8th Edition, by James Stewart, which covers most of our course material. However, it is expensive.

Assessment and Deadlines

Type	Description	Due Date	Weight
Assignment	Five homework assignments will be done on the LYRX website	On-going	14%
Quiz	Quiz #1	2018-09-24	5%
Quiz	Quiz #2	2018-10-15	5%
Quiz	Quiz #3	2018-11-05	5%
Quiz	Quiz #4	2018-11-19	5%
Term Test	Midterm Test	2018-10-23	20%
Class Participation	Tutorial Participation	On-going	6%
Final Exam	UTM Regular Exam	TBA	40%
Total			100%

More Details for Assessment and Deadlines

Term Tests and Quizzes

There will be four quizzes, **during tutorial times**, on **September 24 and 26, October 15 and 17, November 5 and 7 and November 19 and 21**. The quizzes will be returned **during tutorial times**, in the week following the quiz.

Students may only write quizzes in the tutorial section for which they have registered Any questions regarding changing tutorial registration should be directed to the office of the registrar. The Department of Mathematical and Computational Sciences cannot change student registration.

The midterm test will be written on **October 23 (LEC0101), October 23 (LEC0103) and October 23 (LEC0102)**.

*****Do not forget to bring your student card to the midterm and each quiz.*****

Assignments

There will be five online assignments in this course, done on the LYRYX website. Assignments will be released on the LYRYX website in a timely manner, coordinated with the lecture material. Assignment problems may be attempted as many times as desired - only the highest mark for each question will be recorded. There will be plenty of time to complete the assignments and, according to the marking scheme, there is no disadvantage to beginning the assignments as soon as they are released. Consequently, the due dates for the assignments are firm. **No extensions will be given**. The fact that your computer crashed just before midnight on the due date is not a valid reason for an extension.

Final Exam

The final exam of the course will take place during the examination period in December and will be 3 hours long. It will cover all the material presented in the lectures, in the text and in the assignments. It will require extensive preparation.

Penalties for Lateness

As noted above, late assignments will **not** be accepted.

Procedures and Rules

Missed Term Work

Missing a Term Test

If a student cannot show up for the midterm test a quiz because of illness or any other special reason, the instructor will adjust the marking scheme properly. In order to obtain this, the student should submit a hard-copy signed statement which outlines the special circumstances involved and which includes the full name of the student, student number and an explicit request for mark

adjustment which normally would be a request to transfer the weight of the quiz to the final exam. Send such letters to Parker Glynn-Adey for quizzes and to Huan Vo for the Midterm Test. There will be **no make-up test or make-up quizzes**

Documentation (for example, the official *Verification of Student Illness or Injury* form, which can be downloaded from <http://www.illnessverification.utoronto.ca/>) should not be submitted to the instructor, but should be kept by the student to provide verification when the case is reviewed by the Department of Mathematical and Computational Sciences.

Missed Final Exam

Students who cannot write a final examination due to illness or other serious causes must file an [online petition](#) **within 72 hours of the missed examination**. Original supporting documentation must also be submitted to the Office of the Registrar **within 72 hours of the missed exam**. Late petitions will **NOT** be considered. If illness is cited as the reason for a deferred exam request, a U of T Verification of Student Illness or Injury Form must show that you were **examined and diagnosed at the time of illness and on the date of the exam, or by the day after at the latest**. Students must also record their absence on ACORN on the day of the missed exam or by the day after at the latest. Upon approval of a deferred exam request, a non-refundable fee of \$70 is required for each examination approved.

Academic Integrity

Honesty and fairness are fundamental to the University of Toronto's mission. Plagiarism is a form of academic fraud and is treated very seriously. The work that you submit must be your own and cannot contain anyone else's work or ideas without proper attribution. You are expected to read the handout How not to plagiarize (<http://www.writing.utoronto.ca/advice/using-sources/how-not-to-plagiarize>) and to be familiar with the Code of behaviour on academic matters, which is linked from the UTM calendar under the link Codes and policies.

Final Exam Information

Duration: 3 hours
Aids Permitted: scrap paper for rough work

Additional Information

Calculators

Calculators will **not** be allowed during the term tests and the final examination. You may use a calculator when working on the problem sets.

Course website

You can access the MAT232 course website through the University of Toronto Canvas/Quercus (<https://q.utoronto.ca>).

Suggested problem sets, messages, handouts and other important information will be posted on the website, so you should check it up regularly. You will also be able to see your marks for the term tests online, but the website is not the official record and may not be updated. The official records are kept by the course coordinator.

Tutorials

Each student must be registered in one of the tutorials (on ROSI), and attend it regularly every week. In the tutorials, which are run by the teaching assistants, you will have the opportunity to write the quizzes and your TA will present solutions to text problems. Occasionally, the TA will review some of the material discussed in the lectures and provide advice and guidance. The TAs will also hold office hours.

Tutorials will begin on September 10 and September 12.

E-mail Policy

E-mails must originate from a utoronto.ca address and contain the course code MAT232 in the subject line. Please include your **full name** and **student number** in your e-mail.

Last Date to drop course from Academic Record and GPA is November 8, 2018.