# DEPARTMENT OF MATHEMATICAL AND COMPUTATIONAL SCIENCES UNIVERSITY OF TORONTO MISSISSAUGA

# MAT137Y5Y LEC0101 Calculus Course Outline - Fall 2019

**Class Location & Time** Tue, 09:00 AM - 11:00 AM MN 1190

Thu, 09:00 AM - 10:00 AM MN 1190 Fri, 04:00 PM - 06:00 PM ZZ TBA

Jaimal Thind

InstructorJaimal ThOffice LocationDH 3025

**Office Hours** 

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**Co-Instructor** Xiudi Tang **Office Location** DH 3019

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## **Course Description**

A conceptual approach for students with a serious interest in mathematics. Geometric and physical intuition are emphasized but some attention is also given to the theoretical foundations of calculus. Material covers first a review of trigonometric functions followed by discussion of trigonometric identities. The basic concepts of calculus: limits and continuity, the mean value and inverse function theorem, the integral, the fundamental theorem, elementary transcendental functions, Taylor's theorem, sequences and series, power series. [80L, 48T]

Prerequisite: Minimum 70% in Grade 12 Advanced Functions (MHF4U), Minimum 70% in Grade 12 Calculus and Vectors (MCV4U)

*Exclusion:* MAT133Y5, MAT134Y5,MAT135Y5, MAT132H5, MAT134H5, MAT135H5, MAT136H5, MAT133Y1, MAT135Y1, MAT135H1, MAT136H1, MAT137Y1, MAT157Y1, MAT157Y5, MATA30H3, MATA31H3, MATA32H3,

MATA33H3 ,MATA35H3, MATA36H3, MATA37H3 (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**

"Calculus in One Dimension vol I & vol II", by T. Holden. We will use Volume I in the fall term, and Volume II in the winter term. The bookstore has copies of these books. They are sold independently, and you are encouraged to buy Volume I only, until you are sure you will continue in this course. (I.e. buy Volume I in September, and wait until January to buy Volume II.) There is no cost difference for buying this way, and it saves you money if you decide not to take this course.

#### **Assessment and Deadlines**

Type	Description	Due Date	Weight
Assignment	10 homework assignments	On-going	10%
Quiz	bi-weekly tutorial quizzes	On-going	10%
Term Test	four term tests (10% each)	TBD	40%
Final Exam		TBA	40%
		Total	100%

#### More Details for Assessment and Deadlines

#### **Homework:**

There will be 10 written homework assignments throughout the course. These are to be submitted *on our course page* by 11.59pm on the date they are due. Late assignments are not accepted. Assignments will be posted on the course page.

#### **Tutorial Quizzes:**

Each week in TUT your TA will give you some problems to work on, either independently or in small groups. You will be able to ask your TA questions about these problems, and get help working on them in real time. Every two weeks (roughly), there will be a short quiz based on these problems. If you are attending your TUT and taking part in the problem solving during TUT, then this quiz should not be very difficult. There are no make up quizzes. Please see the weekly schedule for quiz dates for your TUT section.

### **Term Tests:**

There are four term tests. Tests take place on Friday 4-6pm for all sections! The dates are as follows:

Test 1 - October 25, 2019

Test 2 - November 22, 2019

Test 3 - February 7, 2020

Test 4 - March 20, 2019

There are no make up tests. Please see the syllabus posted on the course page for details about missed tests.

#### **Penalties for Lateness**

Late assignments are not accepted.

### **Procedures and Rules**

#### **Missed Term Work**

To request special consideration, bring supporting documentation to the instructor in person during office hours at least one week in advance.

In case of illness, submit your U of T medical certificate to the instructor within one week of the missed work, using the "Medical Note Submission" link on the course page. The certificate must specify the exact period during which you were unable to carry out your academic work.

#### **Missed Final Exam**

Students who cannot write a final examination due to illness or other serious causes must file an<u>online petition</u> 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 elses work or ideas without proper attribution. You are expected to read the handout How not to plagiarize (<a href="http://www.writing.utoronto.ca/advice/using-sources/how-not-to-plagiarize">http://www.writing.utoronto.ca/advice/using-sources/how-not-to-plagiarize</a>) 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: None

# **Additional Information**

Please see the syllabus posted on the course page for a week-by-week schedule and more detailed information about missed tests and course information.

Last Date to drop course from Academic Record and GPA is February 17, 2020.