# DEPARTMENT OF MATHEMATICAL AND COMPUTATIONAL SCIENCES UNIVERSITY OF TORONTO MISSISSAUGA

# MAT236H5F LEC0101 Vector Calculus Course Outline - Fall 2019

**Class Location & Time** Tue, 11:00 AM - 12:00 PM MN 1170

Thu, 11:00 AM - 01:00 PM MN 1170

**Instructor** Jacopo De Simoi

Office Location DH3040

Office Hours Tu 12p-1p; Th 1p-2p

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Course Web Site <a href="https://q.utoronto.ca">https://q.utoronto.ca</a>

**Teaching Assistant** Geneva Liwag

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# **Course Description**

(Formerly MAT368H5) The implicit function theorem, vector fields. Transformations. Parametrized integrals. Line, surface and volume integrals. Theorems of Gauss and Stokes with applications. [36L, 12T]

Prerequisite: MAT102H5, MAT223H5/MAT240H5, MAT232H5/MAT233H5 Exclusion: MAT235Y1, MAT237Y1, MAT257Y1, MAT257Y5, MATB42H3 (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**

James Stewart, Multivariable Calculus, 8th Edition

Additional lecture notes will be provided for topics not in the textbook.

#### **Assessment and Deadlines**

| Type       | Description                                      | <b>Due Date</b> | Weight |
|------------|--|-----------------|--------|
| Term Test  | First Term Test                                  | 2019-10-03      | 15%    |
| Term Test  | Second Term Test                                 | 2019-11-07      | 15%    |
| Quiz       | 3 Quizzes during tutorial. Only the best 2 count | On-going        | 20%    |
| Assignment | 6 Assignments                                    | On-going        | 10%    |
| Final Exam | Final Exam                                       | TBA             | 40%    |
|            |  | Total           | 100%   |

#### More Details for Assessment and Deadlines

Term tests will take place during the lecture dates indicated above.

Homework assignments will be due on Tuesday before the beginning of the lectures on the following dates: Sept 17, Oct 1, Oct 22, Nov 4, Nov 19, Dec 3. Homework questions are generally longer and typically more difficult than exam questions. They are designed to challange you to think and help with a deeper understanding in the process. Discussing the homework problem is allowed and encouraged for difficult problems, but please note that the **final answer must be written down by yourself without help.** 

There will be 3 (30-minute) quizzes during tutorials on the following dates: Sept 23, Oct 28 and Nov 25. Only the best 2 of 3 will be counted toward the total quiz score.

### **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.

If missing a quiz or term test due to illness, you should notify the instructor immediately (within reason depending on the nature of the illness), and bring a U of T medical certificate to the instructor within one week of the missed work. The certificate must specify the exact period during which you were unable to carry out your academic work.

The marking scheme will be adjusted for missing quizzes or tests due to a legitimate reason.

- One missed quiz: the missed quiz is dropped as the lowest mark.
- Two missed quizzes: the remaining quiz counts as 10% and 10% is added to the weight of the final exam.
- Three missed quizzes: 15% is added to the weight of the final exam.
- One missed test: the remaining test counts as 20% and 10% is added to the weight of the final exam.
- Two missed tests: 30% is added to the weight of the final exam.

No aid is allowed during quizzes or term tests.

#### **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**

Homework assignment, lecture notes, announcements will be posted on Quecus on an ongoing basis.

Last Date to drop course from Academic Record and GPA is November 7, 2019.