

Department of Mathematics, University of Toronto
MAT291H1F - Calculus III
Syllabus - Fall 2014

Brief Course Description

This is a first course in multivariable calculus, covering: functions of several variables and the gradient, multiple integrals and the Jacobian, line integrals, Green's theorem, divergence, gradient, and curl of a vector field, surface integrals (and some applications from electromagnetics), Stokes' theorem and the divergence theorem, constrained max/min problems and the method of Lagrange multipliers. Students will be required to be able to solve standard computational problems and understand the main concepts, definitions, and theorems in each section covered.

Developing your ability to think precisely and mathematically is an important objective. The foundations of many courses you will take in your remaining two years are based on the material that we will cover in this course. Your instructors and TAs are available for help should you encounter any difficulty.

Lectures/Administrative Information

Section	Time/Room	Instructor	Office
LEC01	M11-12/MC252, W11-12/MC252, R11-12/MC252	F.P. Dawson dawson@ecf.utoronto.ca	SF1021H
LEC02	T9-10/BA1170, R9-10/BA1170, F9-10/BA1170	Prashant Athavale prashantva@gmail.com	HU1001A (215 Huron)
LEC03	T9-10/MC252, R9-10/MC252, F9-10/MC252	Curtis Pro curtispro@gmail.com	HU1025 (215 Huron)

The course coordinator is Francis Dawson; his contact email is dawson@ecf.utoronto.ca. The course website can be found on Blackboard and will be administered by Curtis Pro. All announcements and handouts will be posted to the website. Please visit the website regularly. Each instructor for the course will hold weekly office hours. From time to time, your instructors or TAs may wish to contact you with announcements via email. You are required to maintain a working utoronto.ca email address for this course. It is crucial that your email on ROSI (which appears on blackboard) is a utoronto.ca email address.

Textbook

Briggs, Cochran and Gillett: Calculus for Scientists and Engineers: Early Transcendentals, 2nd edition.

Tutorials

Every student is registered in one tutorial section. Tutorials begin the week of Sept. 15th. During your tutorials your TA will discuss some problems from the suggested homework problems in the first 1.5 hours of the tutorial (see the Schedule and Suggested Problems posted on the website). Consequently, to get the most out of your tutorial you must keep up to date with the homework and come prepared to ask questions, should you have any. This is a relatively fast-paced course, and regular attendance in your tutorial is an essential component of this course. The Schedule of tutorials is as follows:

Quizzes

Each week, during the last 25-30 minutes of the tutorial session, except during the week of the midterm, there will be a quiz based on the assigned homework problems. This is to encourage you to work through all the homework problems before attending the tutorial, and help you get the most out of the course. **There are to be no make-up quizzes offered.** There will be 10 quizzes. We will only count your top 8 quiz marks. Also, in the last half hour of the tutorial, prior to writing the quiz, you will be requested to pack all books, bags and coats away, either at the front or back of the room. The question will be written on the blackboard and you should bring a piece of paper with you. Do not forget to mention your name and student number on the front of the piece of paper.

The TAs responsible for conducting the tutorial, administering the quizzes in the last half hour of the tutorial and grading your quizzes are listed as follows:

Section	Time	Tutorial Rm	TA	Email
TUT01	T 1-3	WB 342	Ali Ramezani	aramezani@comm.utoronto.ca
TUT02	T 1-3	GB 404	Utkarsh Patel	utkarsh.patel@mail.utoronto.ca
TUT03	F 10-12	GB 304	Kenji Clark	jkdclark@gmail.com
TUT04	F 10-12	GB 404	Siyu Liu	siyu.liu@utoronto.ca
TUT05	R 3-5	RS211	Dave Yan	dyan@ele.utoronto.ca
TUT06	R 3-5	GB 412	Mahdi Hosseini	mahdi.hosseini@utoronto.ca

Midterm Exam

There will be one 110 minute midterm exam to be held on Thursday October 23 from 6-8 pm. Details of room assignments for the midterm will be posted on the course website before the exam date. **There will be no make-up exam.** The cover page of the midterm exam will have a box on it in which you must indicate your tutorial section number. Please do not forget to enter this number on the cover page of the midterm exam. **You will lose 5% of your midterm grade if you put in the incorrect tutorial number or leave it out altogether.** Any concerns regarding

the grading of the midterm should be directed to Siyu Liu. He can be contacted by email at: siyu.liu@utoronto.ca

Remarking Procedure

Your midterm exam and quizzes will be returned to you in the tutorial section in which you are registered, usually within one week of being written/submitted. All questions regarding grading of quizzes should be directed towards the TA assigned to grading your quiz and **not** to your instructor. In some instances you may feel that you have been graded unfairly. If you have written your midterm/quiz in **pencil**, then you must submit a request for regrading (with written justification) **before the end of the tutorial in which the work was returned**. If you have written your midterm/quiz in **pen**, then **within three days of the work being returned to you**, you can do the following:

1. First compose a short note justifying why your grade should be changed. We will not respond to frivolous requests. An addition error is an obvious reason for a remark.
2. Email your justification for a grade increase to the TA assigned to grading your quiz, or to Siyu Liu for the midterm and make an appointment with her/him if she/he agrees that a remark is warranted. **Please note that regrading may result in your mark being lowered.**

Missed Term Work

If you miss a quiz or midterm deadline for a legitimate and serious reason which you can document, you must submit this documentation, along with a Petition for Coursework form, to your instructor. The **Petition for Coursework form** is available at the Undergraduate Studies Office in the Sandford Fleming Bldg, Room 600. **All of this documentation must be submitted to Curtis Pro, by hand, no later than 7 days after the date of the quiz/exam.**

Marking Scheme

Your final mark will be calculated as follows:

Share of Final Mark	Deliverable
30%	Quizzes
30%	Midterm
40%	Final Exam