Math 019: Fundamentals of Calculus I
Fall 2017

This class will mostly take place on MyMathLab at `https://www.pearsonmylabandmastering.com/northamerica/mymathlab/`. There is also a course website that links to MyMathLab: `https://www.uvm.edu/~cvincen1/math19.html`.

Instructor Information: Professor Christelle Vincent, office 407 in Henry Marcus Lord House.

For content (i.e. mathematical) questions, please post your question to Piazza at the site `http://piazza.com/uvm/fall2017/math019c/home`. For personal matters, please reach me by email at christelle.vincent@uvm.edu.

Course Description and Goals: Fundamentals of Calculus I is the first course in a two-course sequence. The underlying applications of differential calculus will be investigated. This will include an understanding of functions, limits, continuity, rates of change, derivatives (including implicit derivatives), and derivative applications. The material will be discovered and shown via mathematical modeling of real world situations.

The goals for this class are the following:

1. To develop confidence in the student's mathematical modeling.
2. To understand new concepts graphically, numerically, verbally, and algebraically.
3. To introduce the basic theory and concepts of differential calculus.

Office Hours: I will have three hours of office hours each week, to be finalized together on the first day of class.

Textbook: *Calculus with Applications*, eleventh edition, by Lial, Greenwell and Ritchey packaged with a MyMathLab Access Code. You **must** have access to MyMathLab to complete the homework, and MyMathLab access comes with an e-text. You do not need a paper copy of the book if you do not want it. The class will follow the text closely.

The code for our course is **vincent38657**.

Attendance: You are expected to attend every lecture. If for whatever reason you cannot attend lecture, you are responsible for asking a classmate to tell you what you have missed.

If you miss lecture and a quiz is given that day, you will get a score of zero on that quiz.

ROTC, military, athletics: If you are a student-athlete or are in ROTC or have active military duty and you believe you might need accommodations due to commitments related to these activities, please submit in writing to me by the end of the second full week of classes your planned schedule of athletic competition or your planned schedule of military duties for the semester. You will be expected to turn in homework on time, or in advance, as necessary, except in very special circumstances.

If you are a student-athlete, the department of Vermont Catamount Athletics has various resources to help you manage your academic load. Do not hesitate to avail yourself of these resources.

Religious accommodations: Students have the right to practice the religion of their choice. If you believe you might need accommodations to take part in religious celebrations, please submit in

writing to me by the end of the second full week of classes your religious holiday schedule for the semester. Together we will work on arranging a way to make up any work you might miss. You will be expected to turn in homework on time, or in advance, as necessary, except in very special circumstances.

SAS: In keeping with University policy, any student with a documented disability interested in utilizing accommodations should contact SAS, the office of Student Accessibility Services (previously ACCESS). Once you have this letter, I will be available to meet with you privately to discuss the accommodations you plan to use in this course.

Grading: Your grade for this class will be based on your performance in the following activities, weighted as follows:

Homework: 15%
Quizzes: 15%
Exam 1: 20%
Exam 2: 20%
Final Exam: 30%

All of your written work will be graded on correctness as well as legibility and clarity. I reserve the right to assign a score of zero to any problem or assignment that is unreasonably difficult to understand or read.

Homework: After every class I will assign homework on MyMathLab. For full credit, the homework will be due at 5pm on the day of our next class meeting. Late homework will be accepted until the following exam, with a penalty of 1% per day (approximately 10% per week) on the questions that have not been answered yet.

Please note that each homework will appear twice on MyMathLab. The "Practice" version of the homework is not for credit, but will allow you to use all of the help MyMathLab has to offer and will allow you to try and answer each question as often as you would like. The real version of the homework, which is for credit, does not offer any help and allows you only three tries for each question.

Only your top fifteen homework scores will count as part as your final homework grade. There will not be any make-up homework or further extensions on deadlines *under any circumstances.*

Quizzes: Approximately twice a week we will have an in-class quiz. The quiz will be closed-book and closed-notes, and will either test you on concepts we are learning or will ask you about a problem from a recent homework set.

Only your top ten quiz scores will count as part of your final quiz grade. There will not be any make-up quizzes *under any circumstances.* If you must miss so many classes that you are not present for at least ten quizzes, please arrange a private meeting with me. If you can present me with documentation explaining your circumstances, we can work out some alternative way to assess your learning.

Exams: There will be two in-class exams and a university scheduled final exam. The problems on the exams will be similar to the problems on the homework and the quizzes. All exams for Math 19 will be closed-book and closed-notes. You may use a TI-83/84 calculator or anything will fewer

capabilities (calculators capable of symbolic calculus computations are not allowed) but you should not need a calculator to complete the exams.

The tentative dates for the in-class exams are

- Wednesday, September 27
- Wednesday, November 8

If you have a conflict with an exam in this class, you must inform me in writing at least one week before the date of the exam, or one week before the last day of classes for the final exam.

If an emergency occurs and you need to miss an exam, you must notify me in writing within 24 hours of the exam. Please include the reason and documentation. Except if you are missing the final exam, your final grade will be based solely on the rest of your scores in the class.

The final exam is on December 15, from 7:30am to 10:15am, in Kalkin 001.

Individual exams will not be curved nor scaled. However, final grades in this class will be scaled to give a distribution that is typical for this class. Exams will be difficult and averages will be low, but letter grades will be adjusted appropriately at the end of the semester.

Academic dishonesty: The UVM Code of Academic Integrity is in effect in this class as always. Please familiarize yourself with it if you haven't already.

Specifically, in this class you may work on assigned homework (which you turn in) with peers, but the work you turn in must be your own and reflect your own understanding of the material. All quizzes and exams must strictly and exclusively be your own work, and be completed without access to notes, books or any outside resources.

Statement on diversity: Mathematics can be learned and enjoyed by everyone, regardless of gender, age, race, sexual orientation, or other personal characteristics. As a group we will work to create a space where we all feel welcomed and encouraged, and any actions or speech that detract from this atmosphere will not be tolerated.

In particular, we will be mindful of encouraging others to let us know if they do not already know something and do everything to support them in their learning. We will not say that things are "trivial." We will offer corrections gently and with the intention of helping the other, as opposed to making ourselves feel good.