

# Fundamentals of Calculus I

Math 019

Tuesday and Thursday

**Instructor:** Mark Ibrahim

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**Office Hours:** Tuesday 4-5pm + 6-7pm Help Session

Thursday 1:30-2:30pm

Mathematics & Statistics House, 16 Colchester Ave.

OR

by appointment (preferably over coffee!)

**Site:** [uvm.edu/~msibrahi/calc\\_I/](http://uvm.edu/~msibrahi/calc_I/)

**Twitter:** @calc\_adventures

**Textbook:** *Calculus with Applications, 10th edition* by Lial, Greenwell & Ritchey.

**MyMathLab** is required with course **ID:** ibrahim48131

We explore the world of the infinitesimal, called the greatest achievement of the human mind (by Von Neumann): Calculus. We'll learn what it means to be close in a precise mathematical sense, building the fundamental notions of functions, limits and continuity. Using these notions, we'll create a powerful tool to quantify rates of change, known as a derivative. We'll culminate with a look into how derivatives can explain so much of our world.

Explaining a concept to others is an excellent way to solidify your own understanding. Consequently, we'll begin each class with a student-led mini lesson—details and schedule to follow.

## Grading

Mini-lesson 13% + Homework 12%

Quizzes (bi-weekly, on Thursday) 25%

Tests (October 8<sup>th</sup> and November 19<sup>th</sup>) 25% + Final Exam 25%

Absolutely no late work accepted—no excuses.

Since emergencies do happen, the lowest two homework and lowest two quiz grades are dropped. I will not tolerate cheating or dishonesty.

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Math isn't based on magical properties, but human intuition. If a concept isn't clear, ask questions, consider an example, or reread the explanation.

Don't settle until the material makes sense to you.

I'm here to help.