MATH 276: Honors Vector Calculus
TuTh 11:30 - 12:45
Room: MSC W304

Instructor: David Zureick-Brown, W430 Math and Science Center, dzb@mathcs.emory.edu

Office Hours: W4:30-6in MSC E406 (time and location tentative); see website for occasional changes.

Textbook: "Calculus, Vol. 2: Multi-Variable Calculus and Linear Algebra with Applications to Differential Equations and Probability" (2nd edition), Apostol

Website: `http://www.mathcs.emory.edu/~dzb/teaching/276Spring2017/`

Course details: Math 275–276 is an accelerated full-year honors sequence which will fulfill the major requirements for each of the courses Math 211, 221 (or 321), and 250 (multivariable calculus, linear algebra, and foundations of math). After this course, the intention is that students will be have the ability and prerequisites to take any of the upper level courses.

The major feature that distinguishes this course from non-honors courses is the emphasis on logic, mathematical proof, and mathematical writing.

A student completing only 275 and not 276 will receive major credit for Math 221 only. (Note: this extra credit refers only to the major requirements, not to college course hours. Math 275–276 still counts as 8 credit hours for the registrar.)

Workload: This course will require a very serious time commitment, and as a 4-credit honors course students should treat this as "a course and a half". To succeed in the course, a student should plan to spend several hours absorbing the material after each lecture. Keeping up with the material will be absolutely essential. In addition to weekly assignments and an extra lab section each Friday, students are expected to very regularly review their notes and read the textbook.

This class will meet 28 times during the Spring. We will cover chapters 5 and 8-12 of the textbook, and a bit of additional supplementary material. The textbook is thorough and beautifully written; the expectation is that, in addition to the weekly written homework, you will read every word of the textbook.

Grade Policy: Grades will be set according to the following table

Homework	40%	weekly, due at the beginning of class.
Midterm Exam	30%	Th. Feb 23 (TENTATIVE)
Final Exam	30%	M. May 1, 8:00-10:30am

The final letter grades will be curved, a lower bound on your grade is 85% – A, 70% – B, 55% – C.

The midterm date is tentative (and may be adjusted if the pace of the course is adjusted), but the date of the final exam is set in stone; make your winter travel plans accordingly. If you have a conflict with the final exam (e.g., another final) please let me know ASAP.

Homework: There will be homework assigned every other week, due on Thursdays at the beginning of class. There will be many simple problems, checking your understanding of the definitions, that will be collected and graded for completness but not correctness. Most weeks there will be a number of proofs assigned. You are expected to write them up very carefully. 3-6 of problems will be carefully graded, and you will receive an additional 20 for completing the assignment. Homework assignments will typically be worth 100 points (20 for completeness, and 80 for graded problems).

The homework assignments are available at the course web page, and will be updated after each lecture. **Please check the webpage for changes before beginning the assignment.**

Additionally, the expectation is that, in addition to the weekly written homework, you will read every word of the textbook and any additional notes.

Overloads: Ken Mandelberg handles all overloads for the department. The overload form is available at `http://mathcs.emory.edu/overload/`.

Honor Code: Remember that copying another student's work is a violation of the Honor Code and will be treated as such. If you must leave class during an exam for **any reason**, please leave all of your belongings (**including your ~~handheld supercomputer~~ phone!**).

For homework: you are free to consult any sources (animate or inanimate) while doing your homework (working in groups is encouraged!), but if you use anything (or anyone) other than your class notes or the texts listed above, you should say so on your homework – please state at the end of every problem any sources used.

On the other hand, you are expected to make an honest attempt to do every problem on your own before consulting other sources. Remember that copying another student's work is a violation of the Honor Code and will be treated as such.

A good rule of thumb to avoid plagarism is the following – when doing the final write up of a problem, do not have any text books, web pages, or classmate's write up in front of you. If you get stuck when writing up an assignment, go back and look again; just make sure that you organize the mathematics in your head before writing a proof rather than copying a solution from some source. **This is a generous homework policy. Please do not abuse it.**