

## Mathematics 171 Differential Calculus

Fall 2009

**Professor:** Shawn Rafalski    15 Bannow    X2198    srafalski@fairfield.edu

**Office Hours:** M 1:30-3 pm, W 11am-12pm & 2-3pm (or by appointment)

**Math Center (Bannow 129A) Hours:** TBA

**Text:** Stewart, *Calculus*, 6th Ed.

**Course Outline:** We will cover almost all of Chapters 1–5.

**Homework Sets:** I assign homework after every lecture. I will collect SOME of it, and what I do collect is due THURSDAYS at the start of class. The homework and lectures are the primary sources for exam material, but students who do well in calculus are typically working on many exercises outside of what is assigned. An average student in this course might need to dedicate around three hours to homework per lecture. Try not to fall behind by always

1. Doing as much as you can from the previous class's homework before the next class, and
2. Spending 15 minutes or so looking through the material for the next class before that class.

NO LATE OR MESSY HOMEWORKS ACCEPTED EVER. The lowest scored homework set will be dropped. You are encouraged to work together on the homework. However, here is a WARNING:

“There is a difference between knowing the path and walking the path.”

— Morpheus, in *The Matrix*.

Meaning: Just hearing someone explain to you how something is done will not make you able to do it—some things in life just have to be learned on our own. So, make sure that before quizzes and exams you can answer all homework questions *on your own*. Math and Science is very frequently a collaborative endeavor, and so it is okay to work together on problem sets, but the *write-up must always be your own*. In particular, copying someone else's completed write-up is cheating and NOT an example of working together. (If you are interested, ask me about the step-1-is-zero-on-the-homework-set, step-2-is-zero-for-all-homeworks, step-3-is-reporting-you-to-the-Dean policy.) If you worked with, talked about with, or solved homework exercises with other students, then write this at the top of each exercise in your write-up (e.g. “I worked with Stan & Kyle on this exercise” or “Joint work with Leighton & Blake for this problem”).

**Quizzes:** Closed book quizzes will frequently be given at either the beginning or end of class on Mondays. There are NO MAKE-UPS. The lowest quiz grade will be dropped. These quiz problems are not designed to be difficult, but only to test your

basic knowledge of the material. I will typically give “B” or “C” level questions in the quizzes, and the homework should be good preparatory material for them.

**Scribe:** A randomly selected student at the start of each class will create an archive of what got discussed in class. This “Scribe” will also generate an example that illustrates something we learned in class and add this to the archive. These scribe-generated examples will serve as potential test material (yeah!).

**The Shape of Space:** This presentation by the mathematician and MacArthur “Genius” award winner will be held at the Quick Center on TUESDAY, OCTOBER 6 from 5-6pm. Clear your calendar for this day, because you are required to attend. (It’s also an FYE event.) This will be the easiest and most fun 2% of your grade that you have ever earned.

**Exams:** There will be three one-hour closed book exams during the semester, and a final exam. Dates to be announced.

**Final Exam Policy:** The date and time of the Final Exam is available on Stagweb. Check this schedule carefully and make your travel plans for the end of the semester accordingly. I will make no alternate exam arrangements.

**Grades:** The following is a rough approximation of the grading system: 10% Homework/Quizzes, 3% Scribe, 2% The Shape of Space, 20% Each Regular Exam, 25% Final Exam. This is a guideline only and will not substitute for the judgement of the instructor.

**Attendance:** If you miss a class, it is your responsibility to find out what happened. Obtain notes and review the material that was covered before you seek help on that material.

**Calculators:** The TI-83/TI-83+/84/84+/(or something similar) is required for this course. You can definitely use it for homework, and there may (or may not) be sections of each exam where calculator use is permitted. Details to follow.

**Academic Honesty:** All quizzes and exams are closed book. You have been told/read about the policies at Fairfield concerning academic honesty. The bottom line is that you are adults—treat this course with the same honesty with which you would like to be treated in your life.