Math 212: Multivariable Calculus
Sections 4 and 6

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Instructor

- Brian D. Fitzpatrick
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Scheduled Lectures and Attendance

This course consists of two weekly lectures.

- Section 4
  - TuTh 11:45 AM - 1:00 PM
  - Physics 047
- Section 6
  - TuTh 4:40 PM - 5:55 PM
  - Physics 259

I will not take attendance in lectures, however missed work resulting from an unexcused absence will count as a zero.

Absences will only be excused by your dean for reasons such as serious illness, family emergency, or official university activities. Under these circumstances, you must present a written excuse from your dean. If you are absent due to illness, you must complete the online “Short-Term Illness Notification” before the class in question.

For an excused absence during an exam, I will use the final exam score to replace the missed exam.

Office Hours

In addition to meeting with students by appointment, I will hold weekly office hours.
Help Room

The Mathematics Department operates a “Help Room” to provide help to first-year students. A solutions manual to the textbook is available in the Help Room.

- Sun, Tu, W 7:00 PM - 10:00 PM
- Carr 137
- [http://www.math.duke.edu/first_year/help.html](http://www.math.duke.edu/first_year/help.html)

Online Resources

All information about this course can be found under the “Teaching” tab on my personal webpage. Note that the common Math 212 webpage and the Math 212 sakai site will also be utilized in this course.

- Course Homepage (can be found at both links)
  - [http://www.essentiallydense.org/teaching/s15](http://www.essentiallydense.org/teaching/s15)
- Common Math 212 Homepage
  - [https://www.math.duke.edu/courses/mth103/](https://www.math.duke.edu/courses/mth103/)
- Sakai
  - [https://sakai.duke.edu/](https://sakai.duke.edu/)

General information about calculus at Duke, including course descriptions and placement information, can be found at the “Information for First-Year Mathematics Students” webpage.

- [http://www.math.duke.edu/first_year/](http://www.math.duke.edu/first_year/)

Textbook

We will cover most of chapters 12 - 15 in the 6th edition of Edwards and Penney’s Calculus.


This text can be found at the University Bookstore.

Grades

Your work in this course will be weighted *approximately* as follows.
Homework 10%
Midterm Exams 45%
Final Exam 45%

This is only an approximation and I reserve the right to determine grades as I see fit.

The block calculus course policies concerning grades are attached to the end of this document.

**Homework**

Homework will be collected weekly, usually on Thursdays. Homework assignments will come from the list of problems posted on the course webpage and will be announces each week via email and on the course webpage. There may also be occasional supplemental homework assignments and quizzes.

You are encouraged to work cooperatively with your classmates on the homework and to visit the help room for homework help. Note, however, that the homework solutions you turn in must be your own work. Copying solutions is a violation of the Duke Community Standard.

Reading the textbook is an essential part of the homework. Textbook sections should be read in their entirety before beginning the homework and not just consulted when you get stuck on a homework problem.

**Exams**

There will be two 75-minute midterm exams, which will be written by me and given during the usual lecture time on the following dates.

- Exam I Thu 3-March 2016
- Exam II Thu 21-April 2016

**Final Exam**

The final exam will be **Thursday 5-May 2016, 9:00 AM - 12:00 PM (Room TBD)**. All sections of Math 212 will take the same exam. The four chapters of material on the Math 212 syllabus will be weighted by approximately 20%, 20%, 20%, and 40% respectively.
Block Calculus Courses, Duke Mathematics

This page concerns Duke calculus courses taught in the block format (Math 105L, 106L, 111L, 112L, 122L, 202, 212). Policies listed here supersede other course-specific or section-specific policies.

Student Learning Objectives
Block Calculus Courses
Department of Mathematics

In these courses, students should:
1. Learn the definitions of the mathematical concepts of calculus enumerated on the syllabus.
2. Understand analytic and geometric perspectives on these concepts.
3. Attain proficiency in the techniques of working with these concepts algebraically, graphically, and numerically.
4. Use these tools for applications in the natural and social sciences.
5. Develop skills in creating and working with mathematical models to solve problems.
6. Learn to formulate and communicate mathematical arguments effectively in writing.

Course Grading

Instructors will assign course letter grades based on their final assessments of the overall performance of each student, considered from multiple points of view. Among these points of view, instructors use information from the block final exam to gauge their sections as a whole in comparison to other sections, creating a context in which to gauge individual students with respect to the grading standards of the Department of Mathematics. This block grading system helps to ensure consistency of meaning for letter grades assigned in these block courses.

Letter grades assigned on work graded before the final exam are assigned without the benefit of the context defined as above, and thus should be viewed only as estimates.

If your instructor assigns percentage "weights" to graded items in this course, those weights are not binding in any way and should be interpreted only as an approximate indication of the importance of those items to the course.

The final exam, as the only graded item of the course that covers the entire syllabus and is common to all sections, will be of major significance in the determination of your course grade. The midterm exams and (in lab calculus courses) laboratory assessments will also be very significant. The significance of homework scores and attendance in the determination of your course grade is at the discretion of your instructor.