Syllabus
Math 223, Section 1
CRN 13369
Fall 2012

Instructor:	Eric Gottlieb
Meetings:	MWF 10 – 10:50 208 Kennedy
	T 10 – 10:50 205 Palmer
Text:	*Multivariable Calculus, 7th edition*
Authors:	Stewart
Office:	317 Ohlendorf
Office Hours:	MTWF 12:30 – 1:30
	R 10:30 – 11:30
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Course description: In Calculus I and II, you studied real-valued functions of a single real variable. In this class, we will build upon that knowledge as we study real-valued functions of several real variables and vector-valued functions of a single real variable. We will find that derivatives and integrals are still meaningful in these contexts, though they are, unsurprisingly, a bit different from what we encounter in the earlier context.

Increasing the number of functional arguments or working with vector-valued functions forces us to move our thinking from the *xy*-plane, where we are accustomed to plotting graphs, to *xyz*-space or beyond. Doing this necessitates developing your ability to visualize and to think geometrically. It also leads naturally to the study of linear algebra. Thus, we will spend some time discussing some linear algebraic concepts like determinants and dot products.

We will also explore polar, cylindrical, and spherical coordinate systems.

Material to be covered includes almost all of Chapters 10 and 12 – 16. This is an ambitious amount of material. I may ask you to read some of the sections on your own. I may also skip a section here or there depending on how quickly we progress.

Homework will be assigned and collected regularly. You may discuss homework questions among yourselves, but you must understand and independently write the work you turn in. Late homework assignments may be declined or penalized at my discretion.

Exams: There will be three in-class midterm exams and a comprehensive final exam, scheduled as shown below. The dates are firm but the material to be covered depends on our pace.

Exam	Date	Material to be covered
1	Tuesday 18 September	Chapters 10 and 12
2	Friday 12 October	Chapters 13 and 14
3	Tuesday 6 November	Chapter 15
Final	Saturday 8 December 8:30 – 11:00 AM	Comprehensive with added emphasis on material not covered on earlier exams

Calculators will not be of much help, but you can use them unless I tell you otherwise.

Grading: Full credit will be granted when you show all of your work, your reasoning is clear, and I can read and understand what you have written. Your grade will suffer if you include extraneous material or if your work is incomplete or so messy or disorganized that I am unable to follow it. Your final score is weighted as follows.

Midterm Exams:	19% each
Homework average:	19%
Final Exam:	24%

The letter equivalent of your number grade is determined as follows.

93-100	90-92	87-89	83-86	80-82	77-79	73-76	70-72	67-69	63-66	60-62	<59
A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F

Attendance is not a formal part of your grade but may be used to decide borderline grades. If you miss five classes without adequate justification, I may ask the Dean to drop you from the class.

If you get stuck, you have several resources at your disposal. Your text and notes are your first line of defense. I am happy to meet with you during office hours. I keep an open door policy, so feel free to stop by any time. If I am unable to meet with you, we can schedule another time.

The Honor Code: I take the Honor Code seriously and I expect you to do the same. All graded work must comply with the Honor Code. I reserve the right to give no credit for any assignment on which the Honor Council finds that a violation of the Honor Code has occurred.