

M408D Fall 2009

Unique Nos. 57105/10/15/20/25/30

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Hours: MWF 10:00 to 10:50 and 3:00 to 3:15 or
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Rules: Don't miss class. Don't be late. Don't buy plane tickets which conflict with exams. Don't pack up early. Staple homework. Don't be rude.

Text: Stewart, Calculus, 6th Edition, of which we will cover most of Chapters 11–16. There is a ton of ancillaries (solution manuals, CD's, web-access, etc.) which you can buy. Most students shouldn't bother with these.

Students with disabilities: The University of Texas at Austin provides, upon request, appropriate academic accommodations for qualified students with disabilities. For more information, contact the Office of the Dean of Students at 471-6259, 471-4641 TTY.

Grading: Homework/Quizzes:	10%
3 Midterm exams:	60%
<u>Final Exam:</u>	30%
Total:	100%

We will be using the +/- grading system: 90% is at least an A, 86.7% is at least an A-, 83.3% is at least a B+, 80% is at least a B, etc. Usually, there's a good curve.

Midterms: Nearly chiseled in stone, the dates for the midterm exams are Fri. Sep. 25, Mon. Oct. 26, and Wed. Nov. 25. I don't give make-up exams and I don't drop anything. If you miss an exam it is not automatically a zero. Instead, I will figure your final grade using the data I have. Exams will be closed book and closed notes. Calculators and cheat sheets will *not* be allowed.

Final Exam: It's comprehensive. Of course. For unique numbers 57105/10/15, the date of the final is Dec. 11, from 2 to 5 p.m. For unique numbers 57120/25/30, the date of the final is Dec. 9, from 9 to 12 noon. The locations of the final exams is determined later in the semester.

Quizzes: If there are any quizzes, they will be a surprise.

Course Content: By the end of the semester, we should understand three mathematical concepts at a level which allows us to solve the assigned textbook problems. First, we will study sequences and series. We should be able to tell whether a sequence or series converges, and in some cases, tell what it converges to. We also reverse the problem by finding a series which converges to a given function. Second, we consider derivatives of vector-valued and multi-variable functions. This extends our knowledge of derivatives of single-variable functions, so that we can find rates of change and extrema of more general functions. Finally, we will study integration of these more general functions in order to find volumes, masses and centers of gravity of 3-dimensional objects. Therefore, the chief prerequisite for this course is a thorough understanding of single-variable calculus, e.g., success in M408C.

Homework is handed in on Thursdays in discussion session. The assignments are on the next page. Which assignments are due will be announced in class and no other place and no other time. Late homework will not be accepted. Unstapled homework, homework without a name, or homework that is disorganized and sloppy will be thrown into a black hole and disappear permanently from all human memory.

Calculators will not be allowed on any exams, but may be used on homework.

Assignments:

Prepare neat and complete solutions to each exercise and hand in each set on the due date announced in class. The following are subject to change. Do not hand in the “warm-up” exercises.

Day	Section	Warm-up Exercises	Hand-in Exercises
1	7.8	7, 11, 15, 20, 37, 38, 47, 48, 55	10, 12, 18, 25, 32, 42, 52, 56, 60, 62
2	8.8	5, 12, 20, 23, 34, 49	8, 10, 15, 24, 28, 30, 35, 52
3	12.1	4, 8, 11, 19, 20, 29, 30, 39, 53, 65	12, 16, 22, 26, 36, 38, 62
4	12.2	8, 11, 15, 26, 41, 44	9, 12, 20, 21, 22, 27, 36
5	12.3	5, 10, 15, 19, 25	4, 6, 12, 16, 22, 26, 30, 34
6	12.4	7, 9, 13, 14, 17, 25	3, 4, 12, 16, 20, 26
7	12.5	5, 7, 14, 23, 27	6, 10, 16, 24, 28
8	12.6	2, 3, 7, 17, 20, 23	5, 8, 12, 27, 30
9	12.7	1, 15, 18, 23, 31	4, 6, 8, 10, 22, 36
10	12.8	3, 16, 24, 27	6, 8, 10, 18, 30
11	12.9	5, 11, 17, 26, 27	4, 8, 14, 18, 24, 30
12	12.10	4, 18, 27, 33, 47, 51	6, 10, 16, 26, 34, 43, 50, 53
13		Exam 1	
14/15	12.11	5, 12, 23, 27	4, 7, 16, 20, 24, 28
16	11.1	5, 14, 15, 28	3, 8, 12, 22, 38, 40
17	11.2	3, 12, 17, 19, 25, 31, 34, 39, 43	8, 14, 18, 26, 32, 42, 48
18	11.3	1, 8, 9, 17, 19, 22, 32, 37, 39	3, 5, 10, 16, 24, 34, 38, 42
19	11.4	3, 5, 12, 13, 23, 29, 32	4, 8, 14, 26, 30, 38
20	13.1	2, 7, 11, 15, 27, 32	4, 6, 10, 14, 16, 30
21	13.2	4, 21, 25, 27	6, 13, 18, 24
22	13.3	3, 5, 15, 26, 35, 37	8, 10, 18, 22, 38, 40, 52
23	13.4	2, 14, 17, 23	5, 6, 16, 25, 32
24	13.5	5, 7, 14, 27, 37, 42	3, 10, 12, 26, 30, 33, 40, 52
25	13.6	15, 41, 43	6, 8, 12, 18, 34
26		Exam 2	
27	14.1	1, 8, 17, 25, 28	4, 9, 12, 16, 36, 42
28	14.2	4, 9, 14, 25, 45, 46	8, 13, 18, 21, 24, 32, 34
29	15.1	13, 19, 37, 44	6, 16, 24, 26, 34, 62
30	15.3	15, 17, 23, 37, 51, 56, 59, 77	16, 18, 28, 45, 47, 54, 62
31	15.4	1, 15, 17, 23, 26, 29, 31	4, 12, 19, 28, 34
32	15.6	13, 23, 28, 47, 59	6, 8, 10, 16, 20, 40, 44, 52
33	15.7	15, 27, 39, 41	6, 10, 18, 30, 40, 44
34	15.8	3, 15, 26, 39	9, 10, 16, 18, 27, 28, 29, 32
35	16.2	5, 15, 21	4, 8, 14, 18, 26
36	16.3	3, 8, 16, 19, 31, 39, 42, 45	4, 12, 15, 22, 24, 25, 40, 44, 48
37	16.4	5, 9, 12, 17, 24, 25, 29	6, 8, 10, 14, 20, 22, 32
38	16.5	3	8, 12, 16
39		Exam 3	
40	16.9	3, 7, 11	2, 9, 12, 15, 20