

# Mw427L Summer 2012

## Unique No. 92130

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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:** (Required) *Vector Calculus* 5th Ed., Marsden and Tromba. No one who buys the student solutions manual is happy with it.

**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

<b>Grading:</b> Homework/Attendance:	10%
8 Quizzes:	40%
Midterm	20%
<u>Final Exam:</u>	<u>30%</u>
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.

**Exams and Quiz Dates:** Nearly chiseled in stone, the date for the midterm exam is Monday July 16. Quizzes are every Thursday in the discussion session. *There are no make-up quizzes.* There won't be a quiz on July 12th before the Midterm. The Final will be scheduled by the Registrar probably on August 11 from 7 to 10 p.m. Exams and quizzes will be closed-book, closed-notes, and no-calculator.

**Homework** Assignments on are on the next page and are subject to change. Due dates are announced in class and *no where else*. *Late home work will not be accepted*, and it hurts to ask. Homework is due at the *beginning* of the discussion session. Staple multiple pages and polish your work; we take points off for missing staples and sloppy or disorganized work.

**Overview** In this course we will study differentiation of multivariable and vector-valued functions and applications thereof. Then we will study integration over higher-dimensional regions, and over paths and surfaces. The course culminates in Stokes' Theorem, which is the multi-dimensional version of the fundamental theorem of calculus. Prerequisite: A grade of C or better in M408D or the equivalent.

IPA	Section	Warm-up Exercises	Hand-in Exercises
1	1.1	3, 6, 9, 11, 21	8, 14, 16, 18, 22
2	1.2	2, 6, 8, 12, 13	3, 11, 14, 17, 18
3	1.3	2, 3, 5, 8, 10, 13, 18, 25, 27, 31	4, 6, 16c, 24, 28
4	1.4	1, 3, 4, 8 S16.7(15.8) / 1, 3, 6, 7, 9; S16.8(15.9) / 2, 3, 5, 7, 10	6, 12, 15
5	1.5	2a, 5, 7, 13	2c, 8, 12
	1.R	1, 4-7, 12, 14, 16, 23, 25, 26, 44, 47	

IPA	Section	Warm-up Exercises	Hand-in Exercises
6	2.1	1, 2b, 6, 16, 19, 23, 28	9, 12, 18, 32
7	2.2	8, 9	
8	2.3	1c, 3e, 5, 6c, 7b, 8a, 13a, 14a, 16	3c, 4d, 7c, 9, 12c, 13b, 14b
9	2.4	2, 5, 6, 10, 14, 15, 17	4, 8, 12, 16, 18, 20
10	2.5	2abd, 3ab, 5a, 13 S15.5(14.5) / 3, 4, 8, 11, 19, 21	2eg, 8, 9, 11, 15
11	2.6	2, 4b, 6, 7	3, 5ab, 8, 13a, 14, 24
	2.R	3, 5, 6, 7d, 8d, 10, 12c, 17, 18a, 25, 32, 35, 36	
12	3.1	4, 7a, 10a, 19	8a, 13, 20def
13	3.2	2, 3	4
14	3.3	4, 5, 25, 32	9, 12, 22, 27
15	3.4	1, 4, 10, 15, 25 S15.8(14.8) / 3, 5, 9, 17, 19	5, 9, 16, 29
	3.R	2c, 3, 4, 10, 12, 19	
16	4.1	2, 6, 9	4, 7, 11, 17
17	4.2	1, 2, 13d, 15c S9.1(8.1) / 7, 9, 15; S11.2(10.2) / 39, 43, 53; S14.3(13.3) / 1, 9, 14	4, 8, 16
18	4.3	1, 4, 10, 11, 13 S17.1(16.1) / 1–18, 35a	8, 14, 15, 20
19	4.4	2, 3, 11, 14, 18, 21, 33a S17.5(16.5) / 5, 7, 25	4, 7, 8, 16, 26, 32
	4.R	4, 6, 9, 10, 14, 22, 26, 27, 28	

IPA	Section	Warm-up Exercises	Hand-in Exercises
20	5.1	1d, 2d	5, 9
21	5.2	3, 4	6, 7
22	5.3	2de, 6, 11	3, 7, 9
23	5.4	1ac, 2ab, 11	2cd, 5, 7, 12
24	5.5	3, 14, 17 S16.6(15.7) / 9, 11, 13, 17	10, 12, 22
	5.R	3, 4, 7, 8, 11, 18, 22, 30, 37	
25	6.1	1, 3	6, 8
26	6.2	1, 3, 8, 13, 16, 25, 26, 31 S16.4(15.4) / 9, 13, 17, 27, 31; S16.7(15.8) / 17, 21, 27(29); S16.8(15.9) / 23, 27, 29, 39; S16.9(15.10) / 7, 9, 11, 15, 19, 23	2, 6, 12, 14, 15, 23, 30
27	6.3	3, 4, 7, 13	5, 8, 10, 14
	6.R	1, 3, 4, 6, 7, 15, 17, 21, 23, 25	
28	7.1	2, 3, 6b	4, 7, 10, 13
29	7.2	1cd, 2a, 3, 11, 16 S17.2(16.2) / 5, 7, 9, 15, 19, 21	2d, 6, 12, 14, 15
30	7.3	1, 2, 10, 14	6, 8, 12, 15
31	7.4	1, 3, 9, 15 S17.6(16.6) / 21, 25, 35, 39, 41, 57	5, 6, 8, 20
32	7.5	1, 3, 7, 11, 12b	4, 5, 10, 13
33	7.6	2, 3, 5, 7 S17.7(16.7) / 5, 9, 11, 20, 23, 25	4, 6, 10, 15, 16
	7.R	1c, 2a, 3b, 5, 7c, 8, 11, 12c, 13, 14, 16, 18, 19, 23	
34	8.1	1, 2, 3a, 13 S17.4(16.4) / 3, 5, 7, 13, 19	4, 5, 7, 15
35	8.2	1, 2, 3, 9 S17.8(16.8) / 3, 5, 7, 9	5, 7, 10, 11, 23
36	8.3	2, 13, 17 S17.3(16.3) / 7, 9, 13, 15, 17, 28(30)	3, 4, 9, 10, 15, 18, 20
37	8.4	1, 3, 7, 8 S17.9(16.9) / 5, 7, 9, 11	2, 5b, 9, 10
	8.R	1, 3, 5, 5, 7, 9, 10, 14, 15, 17, 18, 19, 20	