Calculus III
MATH 226

Text: Essential Calculus, 2nd Ed. By James Stewart

This the last of the Calculus series and assumes a knowledge of Calculus I and Calculus II. The course covers Vectors and the geometry of space including Dot Product, Cross Product, equations of lines, and various surfaces and their equations, partial derivatives, tangent planes, gradient, multiple integrals, change of variables, vector calculus including Green's Theorem, Stokes' Theorem & Gauss's divergence Theorem.

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GRADING POLICY

2 Midterm exams – 40% of grade
Quizzes after deleting the 3 lowest scores – 15%
Homework – 15%
Final – 30%

Approximate Schedule

Week	Sections covered
1	Chap.10, Sec.1-3
2	Chap. 10, Sec. 4-6
3	Chap. 10, Sec. 7-9
4	Chap. 11, Sec. 1, 2
5	Chap. 11, Sec. 3-5
6	Chap. 11, Sec. 6, 7
7	Chap.11, Sec. 8. Chap. 12, Sec. 1, 2
8	Chap. 12, Sec. 3, 4
9	Chap. 12, Sec. 5, 6
10	Chap. 12, Sec. 7, 8.
11	Chap. 13, Sec. 1, 2, 3
12	Chap. 13, Sec. 4, 5
13	Chap. 13, Sec. 6, 7
14	Chap. 13, Sec. 8
15	Chap. 13, Sec. 9. Review

Problem Assignments (These may vary)

Additional problems will be given in class, some for credit and some not.

SEC	PROBLEMS	SEC	PROBLEMS
10.1	7, 9, 11, 13, 35	12.1	15, 35, 43
10,2	17, 19, 21, 29, 31	12.2	15, 27, 43
10.3	19, 27, 29, 37, 49	12.3	7, 27, 25
10.4	9, 17, 33, 43, 47, 49	12.4	7, 15
10.5	3, 11, 25, 29, 33, 35, 45	12.5	5, 15, 19
10.6	5, 11, 15, 25, 31	12.6	17, 25
10.7	3, 23, 29, 35, 45, 51, 57, 79	12.7	25, 39
10.8	3, 7, 13 (omit normal vector)	12.8	Skip
10.9	5, 17, 23, 27	13.1	15, 21, 25
11.1	9, 17, 29, 49	13.2	7, 21, 39, 47
11.2	5, 15, 23	13.3	7, 13, 17, 31
11.3	19, 41, 61, 63	13.4	7, 13, 29
11.4	5, 13, 29	13.5	13, 19, 25, 31
11.5	3, 19, 33(a), 37	13.6	17, 31, 39, 55
11.6	9, 23, 39	13.7	17, 25, 41
11.7	23, 35, 45	13.8	3. 7, 11
11.8	7, 17	13.9	7, 17, 23, 29

The homework is automatically assigned and should be attempted as soon as the pertinent section is covered in the lecture. If you have questions regarding the homework you are encouraged to consult the Instructor.

The homework will be collected in class Wednesday of the week after the problems were assigned and one problem will be graded.