MATH 244 — CALCULUS IV

Instructor: Kenny Corea kcorea@hawaii.edu

Lectures: MWF 12:30-1:20 Webster 113

Office Hours: W 3-5, TR 10-11:30 Keller 402E

Book: *Calculus*, 8th Edition, by Stewart (ISBN-13: 9781285740621).

Course description: Multiple integrals; line integrals and Green's theorem; surface integrals, Stokes' and Gauss' theorems.

Prerequisites: A grade of C or better in Math 243.

Course management: Course announcements and materials will be available on our course page:

`https://math.hawaii.edu/~kcorea/courses/fall_2023/244/`

Grades: Your grade is broken down as follows:

Homework	30%
Exams	45% (3x15%)
Final	25%

The standard letter grade scale will be used.

Homework: There will be weekly written homework assignments, due every Monday during lecture. No electronic submissions will be accepted. All assignments are weighed equally. A subset of each problem set will be graded.

Exams: There will be four exams, three midterm exams and a final. You may use a scientific calculator for numerical computations, no other devices are authorized. For each exam you may bring a two-side 3x5 notecard "cheat-sheet" which can be turned in for extra credit.

Exam 1	Friday 9/22 Lecture room and time
Exam 2	Friday 10/20 Lecture room and time
Exam 3	Friday 11/17 Lecture room and time
Final	Monday 12/11 12-2 Location TBD

Make-up Policy: In general, assignments and examinations will not be excused. Late homework will not be accepted as you have ample time to complete each assignment. If you know you will miss an exam in advance, we can schedule you to take it earlier; you

must notify me at the beginning of the semester if you will miss an exam. To account for unforseeable circumstances the following policy is in place:

Your lowest two homework scores will be dropped. Your lowest exam score will be replaced by your final exam score, if it improves your overall grade.

Academic integrity: Cheating, plagiarism, and academic dishonesty will not be tolerated.

KOKUA: I am happy to work with you and the KOKUA Program (Office for Students with Disabilities), if you need course accommodations. For more information visit their webpage `https://hawaii.edu/kokua/`.

Tentative Schedule: We will cover chapters 15 and 16 of the Stewart text. The following is a rough timeline of what we are covering each week.

Week	Topic
1	Double integrals
2	Polar Coordinates, Applications
3	Surface Area; *Labor Day*
4	Triple integrals
5	Cylindrical Coordinates; **Exam 1**
6	Spherical Coordinates
7	Change of Variables
8	Vector Fields
9	Line Integrals; **Exam 2**
10	Fundamental Theorem for Line Integrals
11	Green's Theorem
12	Curl and Divergence; *Veteran's Day*
13	Parametric Surfaces; **Exam 3**
14	Surface Integrals; *Thanksgiving*
15	Stokes' Theorem
16	The Divergence Theorem
17	**Finals week**