Advanced Multivariable Calculus I: Math 324 B - Autumn 2018

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Office Hours: W 11-12, Th 2-3. I will always be in my office during office hours. If you can't make it, let me know and we can set up another time to meet.

Text: *Calculus: Early Transcendentals*, by James Stewart, 7th Edition. Note: We're using a custom edition of Stewart's Calculus, available at the University Bookstore. There are two volumes: Volume 1 covers Math 124/125, Volume 2 covers Math 126/324.

Course Objectives: This course is a continuation of Math 126. The focus is mostly on integration in multiple variables. We discuss Chapter 15: iterated integrals (double and triple), a bit of Chapter 14: Gradient and Derivatives, and then the rest of the term is about Chapter 16. Chapter 16 introduces line integrals, vector fields, surface integrals, and ultimately how to calculate them using the theorems of Green, Stokes, and Gauss. This course is 'end-loaded', in that there are a lot of big topics in the last few weeks. So be ready for that!

Grading: The weight for each part of the course is given below. **Midterm dates are tentative.**

Category	Weight
Homework (**via Webassign**)	5
Participation and Quizzes	15
Midterm 1 (**Monday, October 22**)	25
Midterm 2 (**Monday, November 19**)	25
Final Exam (**Wednesday, December 12, 8:30-10:20 in CDH 110**)	30
Total	100

Lecture: Lecture is on Monday, Wednesday, and Friday, 9:30-10:20 AM in CDH 110. You are responsible for all information that is discussed during lecture. Usually, Mondays and Wednesdays will be lectures, and we will devote Fridays to solving problems in class.

Participation and Quizzes: I will post reading questions online after each class which pertain to the material we will cover in the next class. I expect you to read and think about these questions *before* you come to class. *To test your preperation, I will call on one or two students randomly at the beginning of each class to summarize the material covered in the text.* There will be short (5 minute) quizzes on most Fridays, which will consist of one or two easy problems.

Homework: Homework will be assigned weekly through webassign, and will (generally) be due each Wednesday. You may need a scientific calculator for solving homework problems in Math 324. It must have trigonometric functions, like Sin and Cos, as well as logarithms and exponentials (ln and exp).

Exams: The midterms will be 50 minutes long and will be given at lecture. The final exam is cumulative. The date of the final is set by the university and is very unlikely to change under any circumstances, so you should plan your travel arrangements accordingly. During exams you are allowed one sheet of hand-written notes (8.5x11 inches, double sided), and a TI 30X IIS calculator: no other calculators are permitted. Cheating will not be tolerated.

Make-Ups: *Late homework will not be accepted for any reason.* In case of observance of religious holidays or participation in university sponsored activities, arrangements must be made at least 1 month in advance for exams. You will be required to provide documentation for your absence. *Make-up exams will not be given.* If you miss an exam due to **unavoidable, compelling, and well-documented** circumstances, the other exams will be weighted more heavily.

Tips for succeeding in this class:.

1. Homework is crucial: Mathematics is not a spectator sport: to learn it, you have to do it. Reading the text and paying attention in lecture are just as important as thinking about the material on your own. When you are stuck or confused on a problem, don't immediately check your notes or ask a friend to find the solution: being stuck is where the most valuable learning can occur!

Try to adopt good work habits: look at the homework within the first few days it is assigned, so your mind can have time to ruminate on the conecptually difficult problems. Absorbing mathematical ideas is like eating: it is better to have one meal of math each day, rather than five in one day, so you can digest properly. If you cram too much math the night before an exam, you are bound to puke it all up the next morning.

2. Ask for help: Most students will hit a wall at some point during the course. Some can't handle the large workload, while others find difficulty with specific concepts in the course. When these times arrive remember to ask for help. Come to me, ask your classmates for help, visit CLUE and/or visit the student counseling center. These are just a few of your options. It is better to find help earlier rather than later. You are all smart enough to do well in this course: the question is whether or not you are determined enough.

Resources:

• A link to the class website can be found at: **http://www.math.washington.edu/∼jfrichey/**
You will find homework assignments, review sheets, grade information, a calendar for the term, and various bits of other useful information there, including past exams and quizzes, TA information, etc.

• The Center for Learning and Undergraduate Enrichment (CLUE) holds drop-in tutoring sessions every weekday evening in Mary Gates Hall Commons. See **http://depts.washington.edu/clue/** for more details.

• The University of Washington is committed to providing access, equal opportunity and reasonable accommodation in its services, programs, activities, education and employment for individuals with disabilities. To request disability accommodation contact the Disability Services Office at least ten days in advance at: 206-543-6450 (V), 206-543-6452 (TTY), 206-685-7264(FAX), or dso@u.washington.edu.

• The Student Counseling Center provides academic skills workshop on a variety of topics including stress management test anxiety and time management to help you succeed at the University of Washington. If any of these is an issue for you, check out the schedule of workshops at **http://depts.washington.edu/scc/studyskills.html**
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