Math 324 D Summer 2016
Advanced Multivariable Calculus
MWF 13.10-14.10 Condon Hall (CDH) 110 B

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Office Hours: TBD

Course description and prerequisites

The topics we will cover include Double and Triple Integrals, the Chain Rule, Directional Derivatives, Vector fields, Line and Surface integrals, the Grad, Curl and Div operators, the Divergence Theorem, and Greens and Stokes Theorems. This course is a continuation of the 120 level calculus courses, and its content is more closely related to concepts discussed in math 126.

As for prerequisites, I will assume you are comfortable with basic differentiation and integration in one variable and basic algebraic manipulations. However, you shouldnt expect to have to deal with some really complicated integration tricks and I will be reviewing past material you might not remember whenever necessary.

Textbook

The course will be based on James Stewarts book *"Multivariable Calculus - Custom Edition (Early Transcendentals)"*, 7th Edition. We will cover part of chapter 14 and all of Chapters 15 and 16. Note that if you have another edition of this book, the chapters might be numbered differently.

Exams

There will be 2 midterms and a final. Important: **There is no final exam week for summer quarter!** The final will take place on the last day of instruction, **Friday August 19** in our regular classroom.

The Midterms will be on the Fridays of weeks 3 and 6, that is, on **Friday July 8th** and on **Friday July 29th**.

During all three exams you will be allowed to have one handwritten double sided note sheet and a scientific calculator (with no graphic/integrating capabilities). The standard TI-30X IIS is recommended, even though any other appropriate calculator is acceptable. No make-up exams will be given: If you have an unavoidable reason to miss an exam the rest of them will be weighted more. In any case, if you need to miss an exam please inform me as soon as possible.

Homework

Homework is one of the most important parts of the learning process: It is your opportunity to see how the concepts discussed in class can be used in problem solving. There is a grader for this section: This means that you will have to write and turn in complete solutions for the homework, explaining your line of reasoning. Note that the grader is hired

to spend about 5 minutes per person for each homework assignment, so it is in your interest to present your ideas as clearly as possible: The grader will not spend time trying to make sense of a messy assignment and she will be allowed to take off points in such cases (typed solutions are appreciated, but in this case please make sure to proofread your work for typos before turning it in).

No late homework will be accepted under any circumstances: If for any reason you cant be in class, you can leave the homework in my mailbox (Padelford Hall, in the graduate lounge) before the beginning of lecture, let someone else turn it in for you, or email me a scanned copy.

You are welcome to discuss problems with your classmates. However, everyone must turn in their own copy, written in their own words. Please do not copy solutions you might find online or in other sources. The grader will take off points if he/she finds out, and, besides that, copying a solution does not help you learn the material (which is the main purpose of the homework).

Finally, note that your worst homework assignment will be dropped.

Grade Distribution

Homework	15%
Midterm 1	25%
Midterm 2	25%
Final Exam	35%

Academic misconduct: Cheating in exams is a serious offense and it will not be tolerated in this class. Details of the University policy on cheating can be found at

`http://depts.washington.edu/grading/pdf/AcademicResponsibility.pdf`.

Resources for Students with Disabilities: 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: 206-543-6450/V, 206-543-6452/TTY, 206-685-7264 (FAX), or dso@u.washington.edu.