University of Washington

Math 425A

Winter 2012

General Information

Instructor:

Ethan Devinatz

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Office hours: Wednesday 2:30–3:30, Friday 3:00–4:00, and by appointment.

About the course and prerequisites: The purpose of this sequence is to provide senior undergraduate and first-year graduate students with a rigorous introduction to the basic elements of analysis (limits, differentiation, and integration). We will emphasize careful definitions and rigorous proofs.

This quarter, we will cover differentiation in one and several variables (Chapters 5 and 9 in the text). I also plan to cover Riemann-Stieljes integration (Chapter 6) together with some topics from Chapters 7 and 8.

Text: *Principles of Mathematical Analysis*, 3rd edition, by Walter Rudin. This book is available at the University Bookstore.

Homework: Homework will be assigned more or less weekly and will require you to write careful proofs. It is expected to be demanding and will count for a substantial portion of your grade. Although you are encouraged to share ideas on homework problems with your classmates, I expect you to actually write your homework on your own. In principle, late homework will not be accepted.

Exams: There will be a midterm and a final exam. The midterm will be given in class and is tentatively scheduled for Friday, February 10. The final exam will be on Wednesday, March 14 from 2:30-4:20.

Absences from the midterm will be dealt with on a case by case basis. Only under unavoidable emergencies (e.g., illness, death in family) will you be allowed to miss an exam without penalty. Such emergencies should be documented if at all possible. Note, however, that if you take an exam you cannot claim illness as an excuse for doing poorly. In certain other situations (e.g., athletic meets, family obligations), you may arrange to take an exam early. This must, however, be set up well in advance and does not apply to the final. I will follow the procedures outlined in the "Examination Guidelines" (look under Academic Calendar and Final Exam Schedule) in dealing with final exam absences.

Grading:

Graded Homework: 35%

Midterms: 20%

Final: 45%

The grade of I (incomplete) will be given only under the conditions in the *University of Washington General Catalog* (under "Grading Systems").