

University of Washington
Math 442
Winter 2008
General Information

Instructor:

Ethan Devinatz
Padelford C-554
phone: 685-4777
e-mail: devinatz@math.washington.edu
web: <http://www.math.washington.edu/~devinatz>

Office hours: Monday and Wednesday 2:30-3:30, and by appointment.

Text: *Differential Geometry of Curves and Surfaces*, by Manfredo P. Do Carmo.

About the course and prerequisites: This course, along with Math 443, is intended to be a concrete introduction to differential geometry. The emphasis will be on curves and surfaces in \mathbb{R}^3 , although more abstract situations may be considered. A good knowledge of advanced calculus, including the inverse and implicit function theorems, and of linear algebra, including vector spaces and linear transformations, are prerequisites. Although we will make little (if any) use of abstract topological spaces, you will need to have a good understanding of the point-set topology of \mathbb{R}^n . Finally, I will also assume that you have had experience in reading and writing proofs.

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 Wednesday, February 13. The final exam will be on Thursday, March 20 from 8:30-10:20. It is possible that I will give a take-home final instead; ample notification will be given.

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:

Homework: 30%

Midterm: 25%

Final: 45%

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