

Mathematics 310A Spring 2005

Introduction to Mathematical Reasoning

Instructor: John Palmieri, Padelford C-538, 543-1785, palmieri@math.washington.edu

Class time and place: MWF 10:30, Sieg 230

Office hours: Monday and Wednesday 1:30–2:20, Tuesday 10:30–11:30, drop-in, and by appointment

Web page: <http://www.math.washington.edu/~palmieri/Math310/>

Text book: *Mathematical Thinking* by John D'Angelo and Douglas West.

Examinations and grading. I will give weekly homework assignments and quizzes, and there will be a final exam. I will post the homework assignments on the course web page, and they will be due **each Friday**, in class. There will be quizzes on most **Mondays**. The final exam will take place on **Monday, June 6, 8:30–10:20**. The quizzes are worth 25% of the grade, the final is worth 30%, the homework is worth 35%, and class participation is worth 10%.

Also, if you do not score 50% or better on the final, you will not pass the course: at best, you can get a grade of 1.9 for the course.

Reading and homework. The best way to learn mathematics is to do it, so you should read the book and do the homework problems. I will provide weekly reading assignments, and you will need to do these to participate effectively in class. I encourage you to send me email with questions about the reading. I will also assign homework weekly. You will do these assignments in groups of five or six students. Most of class on Mondays and Wednesdays will be spent working in groups, and Fridays I'll spend some time lecturing and discussing things with the class as a whole.

A good approach for homework is to first try to do a problem on your own, and then discuss it with your group and classmates. Of course, you are certainly welcome to ask me for suggestions.

When writing your homework solutions: if you find a solution in a book or on a web page or from some other source, please provide a reference. You must also use complete sentences and good grammar when writing your solutions; if you don't, you may get no credit for that assignment.

Quizzes. Each Monday's quiz will be based on the previous week's homework assignment and the current reading and homework assignment. I will ignore your lowest quiz score when computing your grade.

Participation. The participation part of your grade will be determined mainly by how well you work with your group. Regular attendance is one aspect of this.

Office hours. Feel free to drop by my office; if I'm there and not talking to someone else, I'm probably available to talk. If I'm not there, email is a good way to contact me, since I check it pretty regularly. I will not be in my office on most Thursdays.

Goals for the course. The most important things for you to learn in this course are: techniques of proof, how to (start to) think like a mathematician, and how to communicate your ideas effectively. This course is a prerequisite for several others, and as such it is expected to train you in these skills, not in any particular fields of mathematics. In other words, the mathematical subjects covered in this course are somewhat secondary. Roughly speaking, though, we will be covering chapters 1 through 8 of the text book.