Fundamental Mathematics – Math 347 G1
Fall 2007
Syllabus

Instructor: Lee DeVille
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Course Web Page: http://www.math.uiuc.edu/~rdeville/teaching/347/
Text: D'Angelo and West. *Mathematical Thinking,* 2nd edition.
Lecture Time and Location: MWF, 3–3:50, Henry 154.
Office Hours: Illini Hall 344B, time TBD
Subject material: Chapters 1—10, 13—15 will be the core of the course. If time permits we will do other chapters in the text.

Grading:

The course grade will consist of three midterm exams, weekly homework assignments, and a final exam. Each of the midterms will be worth 15%, the final worth 35%, and the total homework score worth 20% of your final grade. Final grades will be determined from averages using the standard ten-point scale. The *tentative* schedule for the midterm exams will be

- September 21, Chapters 1–4
- November 2, Chapters 5–10
- December 3, Chapters 13–15

The final exam will be *cumulative* and will be held in the time and place specified by the college: 7:00-10:00 PM, Wednesday, December 12, 2007, location to be determined later.

Homework will be assigned and collected regularly — there will be a homework assignment collected on most Fridays throughout the semester. The typical homework assignment will consist of five to ten exercises from the book. There will be some individual assignments and some group assignments throughout the course.

Course goals and expectations:

The main goal of this course is to teach you how to prove mathematical statements rigorously. This is a complicated and subtle skill, but it is absolutely indispensable for anyone planning to take higher mathematics courses.

I expect that this course shall prove to be different, and much more challenging, than your previous mathematics courses. The problems you will be asked to solve will differ from your previous classes in at least two ways. The first is that for few of the problems will the method of solution be apparent at first glance — for most of the problems a process of "trial-and-error" will be required to obtain the solution. The second is that the problems will frequently be significantly different from examples worked in the book and in class, and a large degree of creativity will be required on your part. For most of you, these two aspects of mathematical problem-solving will be completely new, and you will find that to keep up with the course you will need to do a significant amount of work outside of class on your own.

That being said, this will be an enriching and useful course for all who take it. While the subject material is difficult and its absorption will require much work on your part, I know that the successful completion of this course will bring a great deal of satisfaction to you. Moreover, this class will prove to be a lot of fun to the mathematically-minded.