Welcome to Math 212, Math for Elementary Teachers II. There is no more noble nor more important profession than that of teaching. The world's young people will be in your hands so it is vital that you perform your duties well. In the current course we will study such topics as Geometry, Probability, Statistics, and Computing. The emphasis is not just on how to do math but on why mathematics works. Teachers need to know mathematics beyond that which they are teaching in order to field questions from their students. You also need to make a C or better in the course to take your block courses. Attendance is crucial. The way to succeed in a math course is to keep up! Do the homework every night and ask me questions whenever you have any. Don't try to wait and cram before exams. This never works in a math class. The best thing that you can do is make use of my office hours. I enjoy talking to students. That is why I became a teacher. Make it a habit to call or come by whenever you have troubles even if it is not an official office hour. I really want you to succeed!

**Prerequisites:** Grade of C or better in math 211. There is no way around this one. Don't argue!

**Special Assignments:** There will be several computer assignments interspersed throughout the course and an outside writing assignment. Technology is important in this world and it is being widely used in the classroom. Teachers are communicators, so learning to write and speak skillfully is vital as well.

**Necessary items:** All students must purchase a compass, straight edge, protractor, and at least two computer disks. A calculator will be helpful.

Classroom procedures: I will generally start each day by answering questions about the previous homework assignment. I may choose to take up the homework prior to that, however, so always have it ready. Homework will be assigned daily. It will be taken up occasionally and without warning. After discussing the homework I will begin the next topic. Your new homework assignment will be on the board as you come in, so copy it down.

**Exams:** There will be 3 in class exams and a comprehensive final. The schedule is as follows:

<table>
<thead>
<tr>
<th>Exam</th>
<th>Date</th>
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<tbody>
<tr>
<td>Exam I</td>
<td>Friday, September 21</td>
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<tr>
<td>Exam II</td>
<td>Friday, October 12</td>
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<tr>
<td>Exam III</td>
<td>Friday, November 9</td>
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<tr>
<td>Final Exam</td>
<td>212-004 Monday, December 10 (1:00 – 3:00)</td>
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- Exams other than the final may be taken early but almost never late.
- Grades will be determined as follows:
  - 3 Exams 60%
  - Homework and Computer 10%
  - Writing 10%
  - Final Exam 20%
MATH 212 SYLLAB
Beginning Fall 2007


Chapter 12 Geometric Shapes 5 hours
Chapter 13 Measurement 6 hours
Chapter 14 Geometry Using Triangle Congruence and Similarity 6 hours
Chapter 15 Geometry Using Coordinates 3 hours
Chapter 16 Geometry Using Transformations 3 hours
Chapter 10 Statistics 3 hours
Chapter 11 Probability 3 hours
Computer: Micro Worlds and Geometer’s Sketchpad 4 hours
Tests 3 or 4 hours
Total 36 or 37 hours

Writing: One writing assignment is required.

Problem Sets: Notice that there are two problem sets. Problem set A has answers provided in the back of the book. Problem set B does not. Problem set B has more of the explain type problems. There is also a set of problems specifically for writing and discussion.