Math 131 - Summer 2013

Instructor: Ryan Julian
Email: mrjulian@math.wisc.edu
Location: B119 Van Vleck
Time: 10:25-11:40am MTWTh

Textbooks:

1. Thomas Parker/Scott Baldridge: Elementary Geometry for Teachers (and Primary Mathematics Textbooks 3B, 4A, 5A, 5B, 6B)
2. New Elementary Math Textbook 1

Course overview: The purpose of this course is two-fold: (1) to provide you with a comprehensive treatment of elementary geometry, preparing you for teaching those concepts in elementary/middle schools and (2) help you to develop an effective style of communicating mathematical reasoning through the use of group work and written work.

As a class, we will work through a variety of problem types typically found in the elementary school curriculum. While participants in the course are future teachers, the course will focus more on mathematics than on principles of teaching. I will try to weave as many teaching ideas as I can into class time, however this is a mathematics course and we will be focusing on mathematics.

At times some may question the material which we’re focusing on, finding it basic. Others may find the material difficult to master. Your view might change depending on the unit of study. This is to be expected. Hopefully you will learn something new about mathematical thinking from the course as we explore alternative strategies and try to see problems from many different points of view. Keep in mind that a good student needs to understand a topic in just one way, but a good teacher must understand every topic from several different perspectives in order to effectively present the material to students with varying strengths and backgrounds.

Grading:

1. **30% Homework Assignments and Quizzes** Assignments will be posted on my website and will be due weekly. Half of the homework grade will be based on the completion of a problem set and the other half will be based on quality of writeup for a subset of the assignment. We will also have occasional brief in class quizzes. These will be announced in advance.
2. **10% Participation** Every student is expected to participate in both group work and large classroom discussions. Chronic failure to do either one will result in loss of points. Seeing as you cannot participate in class if you do not attend class, attendance is mandatory. You are allowed two absences but after that, each time you are absent, one percentage point will be deducted from your final grade.

3. **30% Two Midterms** These will be in class exams taking place around the 3rd and 6th weeks of the semester. Exact dates will be announced closer to the dates of the exams. There will be no alternate exam times except in extraordinary circumstances that are communicated to me in advance.

4. **30% Final Exam** This will be cumulative and will be in class on August 9th. Course policy requires that I not give any early exams so plan your travel accordingly. You must notify me in writing within three weeks of the beginning of the course if you will not be able to make our scheduled final exam time.

Minimum cutoffs for whole letter grades are as follows:

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<tr>
<th>Grade</th>
<th>Minimum Cutoff</th>
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<tbody>
<tr>
<td>A-</td>
<td>94</td>
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<tr>
<td>B</td>
<td>84</td>
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<tr>
<td>C</td>
<td>70</td>
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These grade ranges may be changed in your favor at my discretion.

**Late work:** No late work will be accepted. Your lowest homework score and your lowest quiz score will be dropped, however.

**Calculator Use:** Calculators will not be allowed on exams. Please do not get in the habit of using them on the homework, since they will not be available on the exams.

**Classroom courtesy:** Please support your fellow students by doing your part to provide a classroom free of external distractions. Do not use cell phones, work on laptops (for anything other than taking notes), read newspapers, etc. If you violate this policy you will be asked to leave the classroom.

**Academic Misconduct:** Don’t cheat. Homework and in class work can be completed in small, collaborative groups although direct copying is prohibited. If you have any questions about what constitutes academic misconduct, please ask me beforehand; “I didn’t know” is not a valid excuse.

**McBurney Visas:** If you have a McBurney Visa please talk to me as soon as possible even if you don’t require special accomodations.

**Caveat:** I reserve the right to modify any part of the syllabus in exceptional circumstances on an individual basis. If you have major life events that interfere with this course, please contact me in advance to discuss your ability to complete required course work.