MATH 1480, Section 1 — Fall 2015

T Th 11:20 - 12:45,   DH 107

Instructor: Dr. Ben McCarty

Office: DH 345
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Office hours: 2:30 - 3:30 T Th (or by appointment)

Prerequisites: 1100, 1420, or 1710.

Goals: This course is a *mathematics* course focusing on elementary school mathematics. The main goal, of course, is to acquire a solid knowledge of that material. But an elementary school mathematics teacher needs to know much more, including: (i) how to present the material in the simplest, clearest way, (ii) the appropriate sequential order for developing mathematics skills, and (iii) what the students will find difficult and what errors they are likely to make, and (iv) how each topic helps advance the mathematical level of the students.

Texts:

- *Elementary Mathematics for Teachers*, by Thomas H. Parker and Scott Baldridge.

- *Primary Mathematics textbooks (U.S. Edition)* — Primary Mathematics 3A, 4A, 5A, and 6A and Workbook 5A. Students using this elementary school curriculum were tested as the best in the world. We will do many problems from these books.

It is hoped that all these books will also be useful after you begin your teaching career. In addition, save the these texts. You will use them in the follow-up course!

Expectations: Classes will be primarily lectures, with problem solving individually and in small groups. You are expected to take complete notes, to participate in class activities, and to ask questions about what you do not understand. Attendance will be taken.

Grading Policy: There will be 3 hourly exams, a final exam, and homework/quizzes/special assignments, with percentages as shown below. Missed exams will count as 0 points. Only under rare circumstances (such as illness with a doctor's written excuse) will a make-up exam be given.
   The grading scale (rounded to the nearest whole)is straightforward:

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\begin{array}{llllll}
90\% - 100\% & : & A & \qquad 80\% - 89\% & : & B \\
70\% - 79\% & : & C & \qquad 60\% - 69\% & : & D \\
0\% - 59\% & : & F & &
\end{array}
$$

All grades are based on how well each student learns the material, so grades are not competitive. Grades in 1480 are based on understanding, not upon comparisons with other students.

Grade Breakdown:

15 %	First Exam
15 %	Second Exam
15 %	Third Exam
30 %	Final Exam
25%	Homework & Quizzes

Homework and Quizzes: Mathematics is learned by practice, and confidence is gained through mastery of the material. Homework will be assigned daily in class but will be collected about once each week. There may also be occasional quizzes. Homework and quizzes will count 25% of your grade. This will be done according to the following **point system**: over the semester 250–300 points will be given in graded homework and quizzes. If you earn 200 points you will get the full 25%, otherwise your score will be proportional to how you did out of 200 points. It will take consistent effort on these assignments to earn 200 points.

You should plan on spending at least **3 hours** of homework for each class meeting. It is essential not to get behind; we will work at a brisk pace.

You are encouraged to work in groups on difficult homework problems. This doesn't mean that you should copy from someone or allow someone to copy from you. Rather, you should *explain* the difficult problems and solutions to one another to help each other understand.

Do not let yourself get behind the class! As in most math courses, the material progressively builds upon itself. If you do not understand a particular topic *ask* in class or in office hours.

Calculators: Calculators will **not** be used for this class, and will not be allowed for exams. A successful elementary school teacher should be confident and comfortable solving problems mentally and on paper. One of the goals of this course is to develop that facility.

Important dates:

- For holidays/university closures, see
  http://www.memphis.edu/registrar/calendars/academic/ay1516.php

- Sep 7: Labor Day

- Oct 10-13: Fall Break

- Nov 25-29: Thanksgiving Break

- Dec 2: Classes end

- Dec 10, 10:30-12:30: Final exam