Michigan State University
MTH 201, Section 005 – Spring 2016
Elementary Math for Teachers I
TTh 4:10 – 5:30 pm
A230 Wells Hall

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Office Hour Location: C542 Wells Hall

Prerequisites: Successful completion of MTH 103 or an equivalent course, or exemption based on placement test score

Goals: MTH 201 is the first of a two course sequence focusing on the mathematics needed for teaching in elementary school. MTH 201 focuses on numbers and operations; MTH 202 focuses on geometry and measurement. These are *mathematics* content courses, not courses in methods of teaching. The main goal of these courses is to deepen your understanding of the mathematics taught in contemporary elementary schools. By this we mean that you should know not just *how* to calculate with whole numbers and fractions, use geometric formulas, and solve standard word problems; you should also learn *why* the computational algorithms work, *when* to use each operation or formula, and *whether* alternative solution methods might also be correct. In this course you will also study (i) how to represent concepts and procedures in ways that help children make sense of mathematics, (ii) what concepts and procedures elementary school pupils might find difficult and what errors they are likely to make, (iii) how topics in the mathematics curriculum are related to each other, and (iv) how to begin to create appropriate word problems for different mathematical concepts.

Texts: • *Elementary Mathematics for Teachers*, by Thomas H. Parker and Scott Baldridge.
　　　　• *Primary Mathematics textbooks (U.S. Edition of materials from Singapore)*— Primary Mathematics 3A, 4A, 5A, and 6A and Workbook 5A. (In recent years students using this elementary school curriculum performed among the best in the world.)
　　　　• Sample pages from selected U.S. mathematics curricula
It is hoped that all these materials will also be useful after you begin your teaching career.
We will study virtually all of Chapters 1 – 7 in the Parker/Baldridge textbook.

Assessment and Grading: There will be 3 hourly exams, a cumulative final exam, and other assignments that may include problem sets, quizzes, graded activities, or projects, weighted as noted below:
　　　　• 3 hourly exams @ 100 points each　300 points
　　　　• final exam　　　　　　　　　　　 200 points
　　　　• Other assignments　　　　　　　　 200 points

In this section, In this section, we will have 12 graded assessments worth 20 points each. The lowest 2 will be dropped. These will take the form of collected homework, quizzes, and in class activities. Since two assessments are dropped, late work will **not** be accepted and there will be no make-up quizzes except for official university sanctioned events.

See the last page of this syllabus for the specific dates on which this section will take its exams, as well as other important dates. The **Final Exam** for students in all sections of MTH 201 will be given on **Tuesday, May 3 from 10:00 a.m. – 12:00 noon, location to be announced**.

In most cases, absence from a quiz or exam will result in a grade of 0 points, and no make-up options are available. However, if a student is ill (and has a written note from the attending nurse or physician) or on official university business (e.g. participating in a sanctioned club or sport), alternate arrangements may be possible. Also, MSU now has a Grief Absence policy which allows for accommodations so students are not penalized when there is a verified grief absence. See http://acadgov.msu.edu/sites/default/files/content/GriefAbsencePolicy_2015_04_02_1.pdf

The grading scale is straightforward:

90% - 100%: 4.0	85% - 89%: 3.5	80% - 84%: 3.0
75% - 79%: 2.5	70% - 74%: 2.0	65% - 69%: 1.5
60% - 64%: 1.0	0% - 59%: 0.0	

This grading scale will *not* be curved, even at the end of the semester. All grades are based on how well each student learns the material, so grades are not competitive. Grades in MTH 201 are based on understanding, not upon comparisons with other students.

Importance of Homework and Assessment items: Much of mathematics is learned through solving problems, and confidence is gained through mastery of the material. Homework will be assigned regularly. Most assignments will consist of reading one or more sections in the Parker/Baldridge book and doing most or all of the problems at the end of the assigned section.

You are encouraged to work with your instructor and other students to understand the course material. However, we expect that after conferring with others, you will write up **your own responses individually and independently of others**. **DO NOT copy answers to homework problems from others**. (See note on Academic Honesty later in this document.)

You should plan on spending about 2 hours of homework for each class meeting. *Do not let yourself get behind the class!* As in most mathematics courses, the material progressively builds upon itself. If you do not understand a particular topic ask questions in class, in office hours, or in the Mathematics Learning Center.

Other Expectations: Classes will be a mix of lecture, problem solving done individually and in small groups, and whole class discussion. You are expected to take notes, to participate in class activities, and to ask questions about what you do not understand. Attendance is important and will be taken.

Calculators will not be allowed on any exams. A successful elementary school teacher should be confident and comfortable solving numerical problems mentally and on paper. One of the goals of this course is to improve your confidence and ability to do so.

Occasionally class time is wasted due to the behavior of people who are not respectful of others. Please refrain from the following disruptive actions:
- Coming late to class.
- Reading newspapers or other material not related to the course in class.
- Using objects, e.g. watches, cell phones, that beep or ring in class.
- Having private conversations or text messaging during class time.

- Leaving class early. (If for some reason you must leave class early, please inform your instructor before the start of class, and please leave class quietly.)

Mathematics Learning Center (MLC): The MLC is a free tutorial service operated by the Mathematics Department for students enrolled in introductory mathematics courses. Hours of operation will be announced by the end of the first week of classes. All MTH 201 instructors will staff this service, and you may drop-in during any of the times that the MTH 201 room is open. Students wanting help at the MLC should go to the C-wing of Wells Hall across from the elevators where a student monitor at the lobby window will direct them to the appropriate room for their course.

Policy on Academic Honesty: As noted on the web site of the Office of the Ombudsman and in other MSU publications "The principles of truth and honesty are fundamental to the educational process and the academic integrity of the University; therefore, no student shall:
- claim or submit the academic work of another as one's own.
- procure, provide, accept or use any materials containing questions or answers to any examination or assignment without proper authorization.
- complete or attempt to complete any assignment or examination for another individual without proper authorization.
- allow any examination or assignment to be completed for oneself, in part or in total, by another without proper authorization.
- alter, tamper with, appropriate, destroy or otherwise interfere with the research, resources, or other academic work of another person.
- fabricate or falsify data or results. ...

If any instance of academic dishonesty is discovered by an instructor, it is his or her responsibility to take appropriate action. Depending on his or her judgment of the particular case, h*e or she may give a failing grade to the student on the assignment or for the course*."

Some Important Dates:
Monday – 01/11/2016 – Classes Begin.
Friday – 01/15/2016 – Online open add period for spring semester ends at 8pm.
Monday – 01/18/2016 – Martin Luther King Day - University open, classes cancelled.
Monday 01/18/2016 to Friday 01/22/2016 – Students go to Undergraduate office, C212 Wells
    Hall for Mathematics enrollment changes: late adds, drop to lower course, or make
    section changes.
Friday – 02/05/2016 – End of 100% Tuition Refund
Wednesday – 03/02/2016 – Middle of Semester. Last day to drop course with no grade reported.
Monday 03/07/2016 to Friday 03/11/2016 – Spring Break
Friday – 04/29/2016 – Last day of classes.
Tuesday, May 3 – Final Exam, **10am till Noon**, Location – To Be Announced

Make-up Final Exam: Any student having two other final exams scheduled the day of this Final exam may take the make-up exam given the next day. If you qualify for the make-up final exam, you must fill out a request in C212 Wells Hall no later than Thursday, April 28th at noon and provide a recent copy of your schedule as documentation. You will NOT be allowed to take the make-up final without registering. Students taking the make-up final exam MUST have a pictured ID.

Tentative Schedule

Week	Tuesday	Thursday
1	1/12 Sections 1.1/1.2	1/14 Sections 1.2/1.3
2 *January 22: Last Day to Change from MTH 201*	1/19 Sections 1.4/1.5	1/21 Sections 1.5/1.6
3	1/26 Sections 2.1/2.2	1/28 Sections 2.2/2.3
4 *MTH 201 Exam Week* *February 5: End of Tuition Refund*	2/2 Sections 3.1/3.2 **Review for Exam 1**	2/4 **Exam 1 (50 min.)**
5	2/9 Sections 3.2/3.3	2/11 Sections 3.4/3.5
6	2/16 Sections 3.5/3.6	2/18 Section 4.1
7	2/23 Sections 4.1/4.2	2/25 Sections 4.3/5.1
8 *March 2: Last Day to Drop MTH 201 with no grade reported*	3/1 Sections 5.1/5.2 **Review for Exam 2**	3/3 **Exam 2** (50 min.)
9 *MTH 201 Exam Week*	3/15 Section 5.2	3/17 Section 5.2/5.3
10	3/22 Sections 5.3/5.4	3/24 Sections 5.4/5.5
11	3/29 Sections 6.1/6.2	3/31 Sections 6.2/6.3
12	4/5 Sections 6.4/6.5 **Review for Exam 3**	4/7 **Exam 3** (50 min.)
13 *MTH 201 Exam Week*	4/12 Section 6.5/6.6	4/14 Section 6.6
14	4/19 Sections 6.6/7.1	4/21 Sections 7.2/7.3
15	4/26 Sections 7.3/7.4	4/28 Review for Final
16 *Final Exam Week*	***Monday, 5/3*** ***Final Exam*** ***10 a.m. – 12 noon*** ***Location TBA***	

*This schedule is tentative and subject to changes which will be announced in class