Instructor: **Oh Hoon Kwon**  
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Office Hours: T 10:00am - 11:00am, F 10:00am - 11:00am or anytime by appointment

**Prerequisites:** Successful completion of MTH 130 or an equivalent course, or exemption based on placement test score

**Goals:** This course is focused on the mathematical content needed to teach pre-algebra and algebra in middle school. This course also emphasize the mathematical knowledge for the effective teaching of algebra and functions at the middle school level. This course aims to develop pre-service teachers mathematics content knowledge through solving mathematics problems related to middle school level mathematics and advanced mathematics behind/beyond the level.

This course will have a strong focus on:

- problem-solving;
- making mathematically grounded arguments about the strengths and weaknesses (including generalizability) of a range of solution strategies (including standard techniques);
- examining the rationale behind middle-school students’ mathematical work and how it connects to prior mathematical understanding and future mathematical concepts;
- flexible use of multiple representations such as graphs, tables, and equations (including different forms);
- using functions to model real-world phenomena
- modeling real-world problems (“word problems”) as mathematical problems and then interpreting the mathematical solution in the real-world context; and
- symbolic proficiency (solving equations and inequalities, simplifying expressions, factoring, etc.).

Throughout the course students will be expected to provide mathematical justification for their claims and solution strategies.

**Texts**

  *and*  
- *the following Singapore Math books:*
Primary Math Textbook 5A (U.S. Edition),
Primary Math Textbook 6A (U.S. Edition),
New Elementary Math Textbook 1 (Syllabus D),
New Elementary Math Textbook 2 (Syllabus D),
New Elementary Math Textbook 3A (Syllabus D), and
New Syllabus Additional Mathematics Textbook.

Do not buy the Primary Math Textbook 5A, New Elementary Math Textbook 3A (Syllabus D), or the New Syllabus Additional Mathematics Textbook since copies of the few pages we’ll need from these two books will be copied for you. You may already have the Primary Math Textbooks 5A and 6A and the New Elementary Math Textbook 1 from a previous Math 130 or Math 131 class, respectively.

Assessment and Grading: There will be 2 midterm exams, a cumulative final exam, homework assignments, and group projects, weighted as noted below.

- midterm exams @ 100 points each
- final exam
- HWs
- group projects

See the course web page for the specific dates on which this section will take its exams, as well as other important dates. The Final Exam for students of Math 135 will be given on Monday, May 11, from 5:05pm – 7:05pm, location to be announced.

In most cases, absence from an 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.

The grading scale is straightforward:

93% - 100%: A
89% - 92%: AB
82% - 88%: B
76% - 81%: BC
69% - 75%: C
60% - 68%: D
0% - 59%: F

All grades are based on how well each student learns the material, so grades are not competitive. Grades in Math 135 are based on understanding, not upon comparisons with other students.

Importance of Homework: Much of mathematics is learned through solving problems, and confidence is gained through mastery of the material. Homework will be assigned regularly. Unexcused late work will not be accepted.

You are highly 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.

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/middle 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.)

Policy on Academic Honesty: The principles of truth and honesty are fundamental to the educational process and the academic integrity; 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, he or she may give a failing grade to the student on the assignment or for the course.

If you are a McBurney student, please talk to me as soon as possible, even if you do not need any accommodations.

I reserve the right to modify any part of this syllabus in exceptional circumstances on an individual basis.
If you have a problem regarding Math 135 that cannot be resolved by talking with me, please contact the Associate Chair of Math Department, Prof. Steffen Lempp, lempp@math.wisc.edu. You should make sure that you consult me first. Best wishes for a successful semester!