

Math 135: Algebraic Reasoning for Teaching Mathematics

Instructor: Prof. Steffen Lempp (Department of Mathematics, office: 517 Van Vleck Hall, phone: 263-1975, email: lempp@math.wisc.edu, WWW home page: <http://www.math.wisc.edu/~lempp> with homework and exam information)

Office hours: Mondays and Fridays 2:20-3:00 p.m., or see me after class to arrange an alternative time if you can't make the regular times.

Textbooks: 1. Lecture Notes for "Math 135: Algebraic Reasoning for Teaching Mathematics" (distributed in class, also available on-line at <http://www.math.wisc.edu/~lempp/teach/135.html>, and 2. 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 or the New Syllabus Additional Mathematics Textbook since copies of the few pages we'll need will from these two books 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.

Homework: Assigned on Wednesdays, collected on the following Wednesday at the beginning of class.

Exams: Two midterm exams (Wednesdays, February 25 and April 1, 7:00 p.m. - 8:00 p.m.) and final exam (Monday, May 11, 10:05 a.m. - 12:05 p.m.). Makeup exams will be scheduled only with the instructor's consent, and only in case of illness, family emergency, or conflict with a class requiring your attendance. (Your final exam can also be rescheduled if you have more than two exams during a 24-hour period.)

Projects: Each student will be asked to work, in a group of 2 students, on a project on a topic centering around different approaches to teaching a particular aspect of algebra and "typical" misconceptions students may have with this aspect. The project will consist of a paper and a short presentation to the whole class, starting around the seventh week of classes.

Grades: Based 30% on homework, 30% on both midterm exams combined, 10% on the project, and 30% on the final exam. You are required to prepare your homework assignments on your own (but are encouraged to work on similar problems with others). There will be no credit for copied or (unexcused) late homework. Valid excuses for late homework are illness or family emergency.