

MTE 405

Special Topics, 2 credits

Fall, 2005

The course: Our goal will be to explore in some depth topics relevant to middle school mathematics. We will meet Tuesdays from 5:30 to 7:17 p.m., with a short break half-way through. The CRN is 42106, and the classroom is 268 SFH.

Instructor: Professor Jerrold W. Grossman, 346 SEB, (248) 370-3443. My preferred e-mail address is grossman@oakland.edu. Rather than listing set office hours, my policy is that I'm almost always around and you are encouraged to come for help or just to chat whenever you wish.

Website for the course: I have put some material of interest on a course Web page: <http://personalwebs.oakland.edu/~grossman/MTE405>. Please have a look at it.

Prerequisites: The prerequisite for this course is formally MTE 211, although I will also assume that you know high school level mathematics through precalculus (MTH 141). The attitudinal prerequisite is to be excited about mathematics and have a desire to expand your mathematical knowledge.

Textbook: The content of this course is based on three short books published by the National Council of Teachers of Mathematics (NCTM) and intended for middle school mathematics teachers: *Navigating through Algebra in Grades 6–8*, *Navigating through Measurement in Grades 6–8*, and *Navigating through Probability in Grades 6–8*. Each of these books contains numerous activities for middle school students, complete with discussion, handouts for the students, and solutions. We'll work through many of the activities in class and explore in as much depth as we can the mathematical issues they raise. You need to buy these books from NCTM, which you can do at a discount by joining the organization at a reduced student membership fee. See the course website for links to NCTM. Save them for future use!

Homework: You will be expected to read assigned sections of the books between classes. I will give some written assignments as well, which can be completed individually or in small groups.

Tests: We will have a final examination on Tuesday, December 13, 7:00–10:00 pm. It will be totally open book, and you may use any materials you wish to bring. It will test your understanding of what we have done over the semester.

Grades: The various written assignments will count 40% of your course grade, the final exam 40%, and class participation 20% (missing more than one class for whatever reason will impact negatively on the last of these). Make sure to focus on *clear and effective communication* in all your written (and oral) work in this class.