

MATH 599: Mathematics Teaching Techniques
Section 101, Fall 2002

When: MWF 12:00 noon–1:00 PM

Where: Mathematics 102

Course web page: <http://www.math.ubc.ca/~gerg/Math599>

Textbook: Stephen G. Krantz, *How to Teach Mathematics: A personal perspective* (American Mathematical Society)—can be obtained from instructor

Instructor: Prof. Greg Martin

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Office hours: to be determined

Description: The purpose of this course is to provide students with training to help them become more effective teachers, and also to give the mathematics department a means for evaluating the suitability of students to teach undergraduate courses in mathematics. Virtually everybody is capable of becoming a competent and skillful instructor, but virtually nobody would do well if made to teach a course without preparation or forethought about effective teaching practices. Structuring a course, preparing lectures, delivering information, responding to questions, assigning homework, dealing with problem students, and so on are all areas where a little consideration of certain guidelines can vastly improve a teacher's performance. Much of what comprises excellent teaching is quite different from individual to individual; most of what comprises bad teaching, on the other hand, is universal yet easily avoided with some experience.

Evaluation: The course is graded on a pass/fail basis. Passing the course is based on the following criteria:

- Attendance at class discussions and presentations
- Participation in discussion of assigned reading
- Completion of two teaching presentations

Students will give two presentations during the semester, one of length 20 minutes and one of length 50 minutes. Students will teach typical topics from first-year calculus as if the audience were actually a first-year calculus class, after which they will receive feedback from the rest of the class and the instructor. Clearly, the focus of the class will be not on the final grade but rather on thinking about issues of teaching and course management and giving and receiving constructive feedback on our skills in the classroom.