

Math 8001 meets on Fridays at 12:20pm-1:10pm in Vincent 16. We will not meet during the first week of the semester; the first session will be on September 12, 2014.

Instructors. Bryan Mosher and Jonathan Rogness. Our contact information is given below; note that Rogness has a separate office (Vincent 431) listed on the department webpage, but is rarely there.

Bryan Mosher
Office: Vincent 116
Phone: 612-625-3060
email: mosher@umn.edu

Jonathan Rogness
Office: Vincent 4
Phone: 612-625-2861
email: rogness@umn.edu

Email is generally the best way to reach either of us. Please send any messages about the course to both of us, and include "8001" in the title to facilitate any email searches or filters.

Course Webpage. <http://www.math.umn.edu/~rogness/math8001/>

Textbook. None, although occasional readings may be assigned through handouts and other sources.

Grades. S/N. To receive a passing grade you are expected to: attend all class sessions; complete assigned readings before class begins; be an active participant during discussions throughout the semester; and complete the occasional assignments given in class. We will notify you if you are in danger of not passing the course, but you should always feel free to ask us about your status.

Other Policies. We will follow all University and College policies regarding academic honesty and other matters.

CLASS SCHEDULE

The final class schedule will be determined by the instructors after receiving your input. The following four sessions are guaranteed, although the precise dates of the last two are yet to be determined:

.....
Organizational Meeting (9/12/14). During this session we will talk about Math 8001 and discuss the early-semester issues which you have already encountered in your courses.

Writing Quizzes and Exams (9/19/14). New teachers (and many veterans) routinely give assessments whose length and/or difficulty are off target. What goes into writing a good exam or quiz?

Groupwork. Many courses at the University and other schools make extensive use of groupwork. We will discuss the rationale behind this movement, and what goes into creating effective groupwork activities and leading groupwork sessions.

Observing and Reflecting on Teaching. We will discuss what we look for when observing teachers, and discuss how to interpret comments from students or other people who evaluate your instruction. After this session you will be paired together and asked to observe each other's sections.

.....

The remaining sessions will be scheduled according to your preferences among the following topics. (You may also suggest additional topics.) Look for an email in the next few days with a link to a Google Form to submit your input.

Campus Resources. This session would cover resources available at the University to help you with students who might have mental health concerns, students with learning disabilities, problems with academic honesty, etc.

When a Student Struggles. By mid-semester you may have students who are struggling to stay afloat in your class. This session would explore common issues and suggestions you can make to help them improve their performance.

Course Management Technology. This session would introduce you to various resources at the University, including non-math specific course management websites (like Moodle) to online homework systems (like Webwork).

Teaching with Technology. Rather than course management software, this session would look more closely at how technology can be integrated directly into a course, whether in lecture or discussion sessions.

How to Write and Deliver a Good Lecture. Although many classes use groupwork and technology, lectures are still the bread and butter of mathematics teaching. Giving a lecture which is well organized, informative, and engaging is one of the most important skills you can develop.

Designing a Course and Writing a Syllabus. Most first time lecturers in our department teach in a course with a fixed textbook and list of sections to cover, but must still write their own syllabus. Later in your career you'll have opportunities to choose your own textbooks, create your own schedule, design your own grading scheme, and so on.

Teaching a Summer Course. Summer school classes are often the first courses our graduate students teach autonomously. The compressed schedule, with multiple hours of class time per day, creates logistical and pedagogical issues.

Alternative Course Structures. Several faculty in the department and college are teaching courses with flipped classrooms, online videos, and/or standards-based grading schemes. This session would describe some of these alternatives and the rationales behind them.

How to Give a Good Math Talk. Speaking in a department seminar is similar to giving a lecture in a class, but a talk for a more general audience—e.g. a colloquium, public lecture, or job talk—should be organized and presented differently.

Teaching Opportunities. The department offers a wide variety of teaching experiences to graduate students as recitation leaders and more. This session would describe some of the options available to you in the future.