

Syllabus for MAT 475 and 598, Fall 2004

Instructor: Bernard Maskit

Class Meeting Times: To be arranged.

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Office Hours: Mondays and Wednesdays, 11:00 a.m. to 12:00 noon, and 2:00--3:00 p.m.

Basic outline: The class will meet once before the start of classes on Thursday, 08/19/2004 from 1:00 to 4:00 p.m., to discuss the basics of teaching and to prepare first time T.A.'s for their first class. Then we meet again on Monday, 08/23/04, from 2:00 to 4:00 p.m., for further discussion, including discussion of sexual harrasment. After that, we will meet weekly at a time convenient to everyone in the class, to discuss teaching problems that arise as the semester continues, and also to discuss the topics listed below; **ATTENDANCE AT THESE WEEKLY MEETINGS IS MANDATORY.** Also, each person in the class will have at least one hour of class videotaped, and will then meet with the instructor to review the tape.

\section{Topics for first meeting, August 19, 2004} There is a separate outline of the necessary information entitled: **PREPARATION FOR THE FIRST CLASS.** The information in this outline will be discussed at the first two meetings, both of which occurs before the start of classes.

The weekly meetings will start with a focus on problems that arise during the course of the semester; it is hard to anticipate exactly what problems will arise. In addition, we will discuss the topics listed below.

1. Relationship with students

1.1. Getting the students involved: Group work, questions with written answers, sending students to the blackboard, others? Should you take attendance? Should you require the students to attend recitation? Should you pressure the students to attend recitation?

1.2. Communication: Blackboard; web site; posting answers on your door; others?

1.3. Respect: The need to demand it, and the requirement to give it. How friendly should one get with the students; can one simultaneously be friendly and sufficiently distant so as to command respect?

1.4. How do we learn mathematics: Do we all learn the same way? Do the students learn mathematics the same way or ways that we do? Can we use our understanding of how we learn to help our students to learn?

1.5. Emotion and metaphor: Can we use metaphor to make mathematics real to our students? Should we as teachers put on a show? If so, how big a show?

1.6. Lecture vs. Recitation: What is the job of the recitation instructor as opposed to the job of the lecturer. What should you do if you feel that the students need you to lecture, or if the students ask you to lecture.

1.7. Preparation: What is the right level of preparation for teaching the students how to solve problems? How important is it that you be be well prepared? What does it mean to be well prepared?

1.8. Textbook: How should you use the textbook? Should you choose problems from the textbook, or make up your own for homework and /or quizzes? How should you advise the students as to how they should use

the textbook?

1.9. Graphing calculators: Should you use the graphing calculator as a teaching tool? How should you teach the students how and when to use them? How should you teach the students how to understand the answers they get from the graphing calculator?

1.10. Control of your presence: How important is it to control your voice? your use of the blackboard? Your use of time? your emotions?

1.11. Grading homework: The tension among: the need to require the students to do a reasonable amount of homework; the need to give the students feedback on how well they are doing; and the need for the TA to limit the time spent on the job.

1.12. Making up and grading quizzes: Why should one give quizzes? Or should one? Are there different kinds of quizzes, which are given for different purposes? The advantages and disadvantages of partial credit: sometimes it is important to have the right answer; sometimes it is important to have the right technique.

1.13. Proctoring exams: What to look for. What to do if you find cheating. What not to do if you find cheating.

1.14. Grading exams: Each course coordinator prepares a grading sheet at the time that the exam is made up, so each TA should have fairly clear guidelines as to how to grade each problem. What to do if there is ambiguity or error in the grading sheet (there almost always is).

NOTE: The final exam will probably require two full days of grading, and you might be needed for the final meeting in which final grades are assigned. You should check with the course coordinator as to when you can leave campus before making plans for intersession or summer vacation.

1.15. Language problems: For some of the students, English is a second language, and it sometimes takes work to understand their questions, or to make your answers understood. For some of the students, American English is their only language and it sometimes takes work to convince them that "English is the Lingua Franca of the modern world", and that they must work to understand others.

1.16. Proper and improper relationships; sexual harrassment: You should have attended a seminar on this at the CELT orientation. We will also briefly review these topics.

1.17. Review sessions and exams: You should expect to be asked to conduct one or more special review sessions before exams. You should expect to proctor several of the uniform exams, and you should expect to spend most of the day after each midterm exam grading it.

2. Relationship with the University and the Department

2.1. Course coordination: Meetings; coordination via e-mail; recording and keeping grades; writing letters of recommendation; attending lectures.

2.2. Proper relationships and sexual harrassment: Your right to be treated respectfully; what to do if you feel that you are not being properly treated by your lecturer, course coordinator, or other faculty member.

2.3. Supervision: A syllabus for your course should be posted on the web before the first day of class. You should either receive e-mail instructions from the lecturer and/or course coordinator, or have a meeting with them, before the first class so that you have reasonable instruction as to what to do. You might be required to attend lecture, and there might be several meetings with the lecturer and/or course coordinator during the course of the semester.

2.4. Open classroom: You should expect your lecturer and/or course coordinator or other faculty members to

visit your classroom; the first visit is supposed to occur during the first two weeks of class. There will hopefully be at least one more visit later in the semester. One or more of these visits may be unannounced.

As part of its mandate to supervise the instruction under its auspices, the Department has the following requirement. The class of each recitation instructor must be visited at least once each semester by the corresponding lecturer, or course coordinator, or other faculty member if the lecturer is a graduate student. The visitor will generate a written record of his/her findings (the Department has a form for this purpose), and then meet with the TA soon after the visit to discuss these findings. The written record will be kept in the file of the TA. If the TA disagrees with some of the evaluative findings, he or she has the right to file a written rebuttal, which will also be kept in the file.

2.5. Videotaping: Each student in this course will be videotaped at least once during the semester. This visit will, in general, be arranged at the mutual convenience of the TA and the person doing the videotaping. The TA and the MAT 475/598 instructor will then watch the videotape together, so that the TA can see him/herself in action and can learn from it. The usual procedure is that no others are present during the session when the videotape is observed, but, the TA can request that others watch as well.

The purpose of the videotape is twofold. First, it gives the TA an opportunity to see herself or himself at work. This is necessary in order to enhance the TA's self-awareness. Second, the MAT 598 lecturer writes a short report, based on this videotape, stating the TA's strengths and weaknesses, and stating whether or not the TA is ready to go on to become a lecturer. While this report remains part of the TA's record, it is regarded primarily as advisory, rather than evaluative. In terms of evaluation, its only possible value would be to provide a baseline for future performance (How good a teacher you are when you first teach is not an interesting question; your eventual evaluation as a teacher will be based on observations made at the end of your career here.)

2.6. Collegial attitude: What does it mean to be collegial? Or to be a colleague? What to do if you are asked to do something that is not part of your formal requirements?

3. This course.

3.1. Student interactions: Should students in this course visit each other's classrooms? Should the videotapes be played for the entire class?

3.2. Interactions with the camera operator: Should the camera operator remain silent at all times? or should he or she interrupt when noticing an obvious mistake or impasse on the part of the TA?

3.3. Interactions with faculty: Would it be useful for the instructor of this class to visit the classes of the students in addition to or instead of the videotaping? Should other faculty be involved? Other questions?