First day handout for Mathematical Communication and Technology

About the course

This course discusses methods of communicating mathematics, with emphasis on computer techniques. The course is intended primarily, but not exclusively, for entering graduate students in the Department of Mathematics at Texas A&M University.

The official course catalogue gives the following description of the course:

Techniques of oral, written, and electronic communication of mathematics; effective classroom and seminar presentation; \TeX, AM\S-\TeX and \LaTeX; hypertext; Internet application; Maple and Mathematica; classroom use of computer graphics.

Course goals

At the conclusion of the course, you should have the following skills:

• be able to produce mathematical documents for distribution both on paper and in electronic form;

• be able to perform symbolic, numerical, and graphical mathematical manipulations on the computer (I will emphasize Maple, one of the major systems for doing mathematics on the computer, and a standard in the mathematics department at Texas A&M University);

• be able to find and post mathematical and pedagogical information on the Internet and World-Wide Web;

• be able to prepare mathematical presentations with attention to good style, clarity of exposition, and level appropriate to the intended audience;

• be able to integrate all of the above techniques.

Course home page

http://www.math.tamu.edu/~harold.boas/courses/math696/
Textbook

There is no required textbook for this course. The course web pages list many useful references, both on-line and in print. Some students, especially those taking the course through distance education, may want to purchase some software.

Prerequisites

Since you are going to be studying techniques for communicating mathematics, it is essential that you know some mathematics already! At a minimum, you need to know calculus. I will not assume that you have extensive computing experience.

Class meetings

The class meets once a week, on Wednesday evening, from 6:00 PM to 9:00 PM, either in Blocker 163 (for discussions) or in Blocker 126 (for computer activities). Distance education students will need to keep in touch with the instructor through electronic means.

There will be no class meeting on Wednesday, November 21, 2001 (the evening before the Thanksgiving holiday). The final class meeting will be on Wednesday, November 28 (which is the last Wednesday of the semester during which classes meet). There will be no final examination.

Grading

Grades will be based on nine assignments (each counting 10%) and class participation (counting 10%). (Distance education students will fulfill the participation requirement through an on-line discussion group.) Final letter grades will be based on the standard scale: you need an average of 90% for an A, 80% for a B, 70% for a C, 60% for a D.

Contacting the instructor

The best way to contact your instructor, Harold P. Boas, is via electronic mail to boas@math.tamu.edu. My office is room 202 of Milner Hall, telephone (979) 845-7269. During fall 2001, I have office hours from 1:00-2:00 PM on Tuesday and Wednesday, and at other times by appointment.