Math 5320 Precalc **Overview** Office: FN 3.308 **1/10/06A**
Butts, Andreescu Office phone: 972-883-4007 [TB] 972-883-2437 [TA]
Spring 06 e-mail: tbutts@utdallas.edu; txa051000@utdallas.edu

Text Materials: • Precalculus with Trigonometry Concepts and Applications, P. Foerster, Key Curriculum Press, 2004. The textbook serves as a common reference.
Much of the reading comes from
• Handouts
• Internet references

Organization: The course is organized around functions and their applications including some initial work on measurement trigonometry. You will need a TI-83/84$^+$ graphics calculator, or "equivalent" [e.g. TI-89, Casio]. We will [1] solve problems [most not from the textbook] involving precalculus and discuss how some of them can be adapted for classroom use; [2] view precalculus from an advanced perspective as it relates to calculus, advanced calculus, and real analysis; and [3] consider various ways of presenting key concepts, alternate proofs of key theorems, use of technology, historical references, etc.

Assessment: • Two tests [50%]
• Several homework assignments containing problems and writing activities [30%]
• Two Portfolios [see below] will serve as the "final exam" [20%]

Portfolios: The two portfolios described below will serve as the "final exam". Assignments will be given throughout the semester that will contain problems to solve, issues to consider, etc.
A selection from these assignments, and a few "new" problems and/or issues will become the portfolio. A key ingredient will be a discussion of the reasons for your choices. More details TBA.

1. A portfolio on **"You as an Precalculus Student".** It will contain a few new problems and your "experiences" with selected problems/investigations and your comments on why you chose each problem or investigation for inclusion in your portfolio; "journal" comments on your methods of approaching these concepts/problems in precalculus and how they might have changed during this course, etc.

2. A portfolio on **"You as a Teacher of Precalculus".** It will be a discussion of several "teaching behaviors" that you use, or hope to use, to improve the "precalculus ability" of your students, your reactions to several issues in the teaching of precalculus, and your choice of ways of using the Internet to enhance your teaching of precalculus.

Some Basic Web Sites
• TEKS Toolkit: Precalculus http://www.utdanacenter.org/mathtoolkit/instruction/precal.php
• Mathematics Forum - Precalculus:
http://mathforum.org/precalc/precalc.html **and** http://mathforum.org/library/topics/precalc/
• Math Archives - Precalculus http://archives.math.utk.edu/topics/precalculus.html
• TI Activities Exchange - go to Math, then Precalculus
http://education.ti.com/educationportal/activityexchange/activity_list.do?cid=us

Academic Honesty: In this course students will conform to the University rules for academic honesty. For more information see http://www.utdallas.edu/judicialaffairs/index.html

Students with disabilities: Information from this course can be provided to students with disabilities through University services. For more information see
http://www.utdallas.edu/student/slife/hcsvc.html