

# MATH 505G - 57770 - Pre Calculus

## Fall 2008

Instructor: Neil Hoffman

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Office Hours: TTH 4-5 F 1-2; by appointment

Class Hours: MWF 12-1 RLM 5.114    Review Sessions: TTH 5-6 RLM 5.118

Website: [ma.utexas.edu/users/nhoffman/2008Fall505G/505G.html](http://ma.utexas.edu/users/nhoffman/2008Fall505G/505G.html)

### Textbook

Precalculus (Custom Edition) by Michael Sullivan, Pearson

### Course Overview

This course has been designed to prepare students for the calculus courses (M408C and M408K) required to earn their degrees in their chosen majors. In fact, the final exam will have questions similar to those assigned in the first week of M408K. Over the course of the semester the lectures, homework and discussion sections will introduce you to the functions and skills that are the foundation of calculus, including: sets, algebra of functions, inverse functions, logarithms, exponential functions, trigonometric functions, inverse trigonometric functions, polynomials, and the range, domain and graphs of these functions. In general, the course is geared toward those students who have had at least three and a half years of high school mathematics.

### Grade Distribution

Homework, 20%    Three in class exams, 45%

Project 5%        Final Exam 30%

### Important Dates:

September 1, Labor Day holiday

September 24, Last day to drop without possible academic penalty

October 22, Last day to drop with dean's approval

November 26 No Class, 27-29, Thanksgiving holidays

December 5, Last day of class

### Calculator Policy

The exams will be taken without pocket calculator. If you decide to use a graphing calculator while working exercises in class or at home, do so only to verify already obtained results. The problems will be adapted to this restriction, e.g. you will never be expected to multiply 1.2305 and 0.9746 on an exam since these calculations would take up too much of your time.

### Attendance Policy

You are expected to attend class and the working sessions. Attendance will be taken at every meeting. Students who have strong attendance (better than 95%) will be considered favorably if they find themselves on the verge of a better grade (within 1.5 points). Students without strong attendance WILL NOT be afforded such opportunities, so a 90.0-100.0% is an A an 80.0-89.9% is a B and so on.

### Homework Policy

Homework will be assigned and collected on Mondays, Wednesdays and Fridays. Your homeworks

are expected to be neatly written with clear logic. They should be stapled. It is not expected that you turn in your first draft to be graded. You should rewrite and edit your work so that you turn in something you are proud of.

### **Students with Disabilities**

The University of Texas at Austin provides upon request appropriate academic accommodations for qualified students with disabilities. For more information, contact the Office of the Dean of Students at 471- 6259, 471-6441 TTY.

Please let me know as soon as possible if you require special accommodations for class, homework, or exams.

### **Cell Phones, laptops and Ipods**

Turn your cell phones and ipods off in class and review session. Laptops do more harm than good in math classes so don't have them out either.

### **Project**

Functions describe the world. Mathematical functions can be created to observe natural phenomena e.g.  $F = m \cdot a$  or to convey more subjective criteria e.g. your grade point average. The purpose of the project component of this course is to explore some functions that describe subjective criteria by writing a 2-3 page explanation for about a specific function. The project will be to take a function with several variables that models or measures some behavior and explain in depth some properties of this function. More information and constraints about this project will be provided at the end of October.

### **Exam Dates**

- Exam 1: September 19
- Exam 2: October 24
- Exam 3: November 24
- Final Exam: To be determined by the Registrar

### **Tentative Course Schedule**

Weeks 1 and 2: Sections 2.1-2.5 (Holiday in week 2)

Week 3: Sections 3.1 and 3.3

Week 4: Section 4.1 and Test I

Week 5: Sections 4.2, 4.3, 4.4

Week 6: Sections 5.1-5.2

Week 7: Sections 5.3-5.4

Week 8: Sections 5.5-5.6

Week 9: Test II and section 6.1

Week 10: 6.2 - 6.3

Week 11: 6.4-6.5

Week 12: 7.1-7.2

Week 13: 7.3-7.4

Week 14: Test III(Thanksgiving Holidays)

Week 15: Projects Due, 7.5, 8.1, Review

More up to date information will be recorded on my website throughout the semester.