

**University of Detroit Mercy**  
**College of Engineering and Science**  
**MTH 480-11 Analysis for Teachers**  
**Term III 2004-2005**

**Instructor:** Saer Alahmar

**Office:** Engineering 324

**Phone:** (313) 993-1057

**E-mail:** [al-ahmas@udmercy.edu](mailto:al-ahmas@udmercy.edu)

**Office Hours:** T R 4:30-5:00 p.m. - & by appointment

**Class Time& Location:** 5:30 –8:00 p.m. E 134

**Text:** “Precalculus, Graphs and Models” by Bittenger, beecher, ellenbogen and Penna; 2<sup>nd</sup> edition.

**Course Description:**

This course will introduce the student to the concept of a function and its graph. Types of functions to be covered: polynomial, piecewise, rational, exponential, logarithmic, and trigonometric.

**Course Objective:**

- ∞ Students will demonstrate the ability to solve polynomial, rational, exponential, logarithmic and trigonometric equations
- ∞ Students will demonstrate the ability to simplify rational, exponential, logarithmic expressions.
- ∞ Students will demonstrate an understanding the distinctions between the behavior and graphs of polynomial, rational, exponential, logarithmic and trigonometric functions.
- ∞ Students will be able to use a graphing calculator to generate graphs of various functions and able to interpret appropriate information from these graphs.
- ∞ Students will demonstrate an understanding of the definitions, graphs and applications of trigonometric functions.

**Course Prerequisite:**

A “C” or better in MTH 101 or the Math placement Exam.

**Calculators:**

You are required to have graphing calculator and, more importantly, know how to use the Graphing features on your calculator ( in addition to the basic functions)! The TI 83/83 plus is recommended. The quizzes and exams will often require the use of a graphing calculator.

**Material:**

My goal is to cover the following material:

Chapter 1, sections 1,2,4,5  
Chapter 2, sections 1,3,4  
Chapter 3, sections 1-4  
Chapter 4, sections 1-6  
Chapter 5, sections 1-6  
Chapter 6, sections 1,2,3,5  
Chapter 7, sections 1,2 ( if time permits)

**Exams:**

There will be three exams in this course: two regular exams and a final. I do not allow notes or books on the regular exams, but you can bring in one 4" by 6" note card. I do not drop any exam grades.

The *tentative* regular exam dates:

Exam 1-	Thursday, May 24, 2005
Exam 2-	Tuesday, June 7, 2005
Final Exam-	Thursday, June 23, 2005 5:30- 8:00 p.m.

**Make-Up Exams:**

If circumstances beyond your control cause you to miss an exam, I will arrange a make-up exam for you. If you miss an exam, you must e-mail, or call me within 24 hours of the exam or you will forfeit your chance for a make-up.

**Quizzes:**

There will be regular in-class quizzes in this course, at least one a week. They will consist of three questions. I will drop your lowest quiz grade. Quizzes will be announced one class period ahead of time and will be given at the end of class. THERE ARE NO MAKEUP QUIZZES REGARDLESS OF THE REASON, PLEASE DON'T ASK.

## **Homework:**

Homework is intended to test and further your understanding of concepts and Procedures learned in class. Study your homework, don't just try to complete it to hand something in! You will receive a homework sheet with assignments for each chapter. Attempt the homework for the section that is covered in class that day.

Mark the problems you had trouble with and bring those questions to the next class.

DO NOT POSTPONE getting help on material you found difficult!

Homework is worth 10 points a piece. To receive full credit, you must SHOW YOUR WORK; Make an attempt at every problem.

Late homework will be accepted for partial credit.

## **Basis for Grading:**

Exam 1	20% points
Exam 2	20% points
Final Exam	25% points
Quizzes	15% points
Attendance	5% points
Homework	10 % points
Assignment Extra	5 % points

## **Important Dates:**

May 20	Last day to drop a course without "W"
June 13	Last day to withdraw.

## **Class Cancellation Policy:**

If a class is missed due to weather or instructor's absence, anything planned for that class will occur during the next class session.

## **Academic Integrity:**

Students are expected to conform to a high standard of honesty and integrity in the course as prescribed in the University Catalog and the Engineering and Science Student handbook.

**Grading System:** (in percentages)

93- 100	A	78- 79	C+
90- 92	A-	73- 77	C
88- 89	B+	70- 72	C-
83- 87	B	60- 69	D
80- 82	B-	0 - 59	F

**Important Notes:**

1. If you miss an exam you must contact me as soon as possible for a makeup.
2. Make- up exams will only be granted to those with a documented excuse.
3. Everyone MUST TAKE the FINAL EXAM.
4. If you miss a class it is your responsibility to make up the work missed that day.
5. Please turn your cell phone OFF during lecture and exams.

**Personal Note:**

Pre-Calculus an exciting subject. It is used in engineering and in both the physical and social sciences. Have fun with the course. Do as much as you can and study hard. I will do my best to help you over the rough spots.