

## MTH 141 – Calculus I Section 01- Winter 2006

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**Course Web Site :** <http://knowledge.udmercy.edu>

<b>Office Hrs:</b>	Mon.	Tues.	Wed.	Thurs. *
	11:00-1:30	12:45-1:30	11:00-1:30	12:45-1:30, 2:00-3:15 (E372)

& by appointment

*\*Early Thursday office hours may be cut short due to occasional meetings*

**Text :** *Calculus, 8th ed.* by Anton, , Bivens, Davis (Early Transcendentals)  
ISBN: 0-471-48238-2

**Grading :** 40% Tests (3)  
20% Quizzes (frequent, unannounced, from HW)  
15% Homework Assignments (many)  
10% Maple Assignments  
15% Final Exam (Cumulative)

### Grading Scale :

93-100% A	87-89% B+	77-79% C+	69-67% D+
90-92% A-	83-86% B	73-76% C	60-66% D
	80-82% B-	70-72% C-	0-59% F

### Course Description :

Topics covered will include : functions, limits and continuity, derivatives and integrals of polynomial, rational, exponential, logarithmic and trigonometric functions.

## Prerequisites :

C grade or higher in MTH 140 or equivalent course. Algebra and trigonometry skills, including: ability to solving equations, ability to simplify and manipulate expressions (including polynomial, rational and trig expressions), ability represent and interpret graphs. Students that feel they would benefit from some review should get tutoring (see below) or see the instructor for help. The text has a review of some of these topics in the appendix.

## Objectives :

Students will demonstrate the ability to use calculus procedures to solve problems.

Students will demonstrate an understanding of calculus concepts when solving problems.

Students will be able to communicate calculus concepts and procedures in verbal, written, graphical, tabular and symbolic form.

## Outcomes:

Students will be able to interpret, manipulate and apply functions in verbal, written, graphical, tabular and symbolic form.

Students will be able to interpret, manipulate and apply limits in verbal, written, graphical, tabular and symbolic form.

Students will be able to interpret, manipulate and apply derivatives in verbal, written, graphical, tabular and symbolic form.

Students will be able to begin to interpret and manipulate integrals in verbal, written, graphical, and symbolic form.

Students will be appropriately use technology to assist in solving problems.

Students will engage in mathematical modeling to solve problems from fields such as natural sciences, social sciences, business, and engineering.

## Homework:

Go to the course web site to get the homework sheet for each chapter. **Expect to spend 1-3 hours per night on homework.** 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.

The next class day questions will answered on the homework, the following class, the homework will be collected and graded, or there will be a quiz on that assignment. Quiz questions will come directly from the homework.

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, and correctly complete the 2 or 3 problems chosen by the instructor. Late homework will be accepted for partial credit up until the test on that material. Credit will be reduced for each class it is day late.

**Tests :**

There will be 3 tests and a cumulative final exam.

**Quizzes :**

Quizzes will come from previous assignments given. **There will be NO make-up quizzes given.** A missed quiz will result in a zero grade. Your two lowest quizzes will be dropped. (Therefore, try not to miss class more than twice!)

**Maple:**

We will be using the Computer Algebra System (CAS) Maple in this class. You should purchase a USB flash drive for saving your Maple worksheets.

The instructor will provide assistance in learning Maple. There will be tutorials and homework assigned to be completed using Maple.

Maple is on the computers in every lab on campus, but students wishing to purchase the Maple software (not required!) can get a discounted student edition for \$75 online.

Ordering Maple online: <http://webstore.maplesoft.com>

Promotion Code: (look up on Blackboard course website)

Course Name: (look up on Blackboard course website)

**Course Web Site :**

The course web site is hosted on UDM's *Blackboard* software. You can access this site using the URL

<http://knowledge.udmercy.edu>.

To login you will need your username, which is in the following form:  
*firstname.lastname* (all lower-case, using your formal first and last name as it appears on your class schedule.)

Your default password should be your student id# (as it appears on your class schedule, NOT your student ID card!).

If you have not already done so, update your password to something more memorable.

\* Update your email address in the **Personal Information** section of TOOL box on the left side of the welcome screen on the Blackboard web site.

The course calendar will be updated on the this web site. Homework and materials for class will be posted here.  
Check the course web site regularly.

### **Make-up Policy :**

The will be NO make-ups given for quizzes. Make-ups on tests will only be allowed in extreme circumstances beyond your control. An e-mail prior to the absence (or A.S.A.P.) is expected. Students are responsible for any work missed. Check the course web site.

### **Calculators :**

You must have a graphing calculator for this course (and its instruction book.)  
The TI-83+ (or TI-89) is recommended.

### **Topics To Be Covered :** Sections:

1.1-1.6  
2.1 - 2.3, 2.5, 2.6  
3.1 - 3.7  
4.1 - 4.4  
5.1, 5.2, 5.4 - 5.6, 5.8  
6.2 - 6.6

## Academic Integrity:

Each student will be expected to meet the standards of academic ethics. Sanctions will be imposed on those who fail to meet these standards according to the *Student Handbook* of the College of Engineering and Science and the *Student Rights and Responsibilities* publication of the University of Detroit Mercy.

Plagiarism will not be tolerated. Referenced work must be cited. If a determination is made that plagiarism has occurred, all parties involved will receive zero grades and the matter will be referred to the appropriate dean(s).

## Dates of Note (test dates are subject to change - check Blackboard for up to date schedule):

Wednesday, January 25	Meet in 3rd floor lab E372 (bring USB flash drive or blank disk)
Thursday, February 9	Test #1 : Chapters 1 & 2
Tuesday, February 28	Midterm grades
Monday, March 20	Test #2 : Chapters 3 & 4
Monday, March 31	Last day to drop classes
Thursday, April 13	Test #3 : Chapters 5 & 6
Wednesday, April 26	Final Exam <b>8:00am - 10:50am</b>