

**Course Syllabus  
MATH 1810  
Applied Calculus Fall 2006**

**Warning: The FDA and CDC warn that reading the following document may cause nausea and insomnia. Those who have *suluclac* (which is a rare—seemingly paradoxical—condition in which a narcoleptic develops insomnia) should be especially careful.**

***Instructor:*** Dr. Scott McDaniel, Ed.D., NRA, FDA, MTV, CNN, LOL

***Office:*** SAG 118 Phone: 904-8367 (or 1-800-ILOVE-Calculus-if you can bring yourself to dial it.) e-mail: [smcdanie@mtsu.edu](mailto:smcdanie@mtsu.edu)

***Web Site:*** <http://www.ilrn.com> I will give you the course ID the first day of class along with access instructions. This site is a vital part of the class. It is your responsibility to get logged on the first week of class. Other websites of interest include, but are not limited to the following:

- [www.whydohavetotakethisclass.com](http://www.whydohavetotakethisclass.com)  
[www.dohavetodomyhomework.com](http://www.dohavetodomyhomework.com)  
[www.iamgoingtolearntolikemath.com](http://www.iamgoingtolearntolikemath.com)

**Office Hours\*\*†**

|           |                  |
|-----------|------------------|
| Monday    | Appointment Only |
| Tuesday   | 1-4              |
| Wednesday | Appointment Only |
| Thursday  | 1-4              |
| Friday    | Appointment Only |

**Teaching during these hours**

|           |          |
|-----------|----------|
| Monday    |          |
| Tuesday   | 4:20-820 |
| Wednesday |          |
| Thursday  | 4:20-820 |
| Friday    |          |

\*\*Other times may be made by appointment. † Please bring food for me when you come (I am vegetarian).

**PRE-REQUISITES:** Two years of high school algebra and an ACT greater than 25 in mathematics or a “C” or better in Math 1710 (College Algebra)

**Materials:** (from the Latin meaning, “My credit card is maxed out.”)  
*Applied Calculus*, 6<sup>th</sup> edition, by Tan. **You must purchase a TI-83, TI-83 PLUS or TI-84 for this course.** There will be several homework problems as well as test questions that will require the use of it. Other calculators such as the TI-81, TI-82 or TI-85 as well as any other type of graphing calculator may be used; however, you will not be able to get specific “technical support” for them. TI-89 and TI-

92 calculators will not be allowed. Internet access is available for student use in the library, KOM computer labs. Pencils must be used on all tests. **Graph paper will also be needed for assignments** (Hint: Type “graph paper” in Google and the first hit will provide you with a plethora of paper preferences). Alternatively, you may want to wing it. There are many people out there who don’t think algebra is challenging enough. So if you want to secure an F, here is what you need to do:

1. Don’t by the book; “I was trying to save a tree.”
2. Don’t by the calculator; “I can compute faster than Rainman”
3. Don’t take notes and keep them organized; “What’s a note?”
4. Don’t use pencils; “A real man uses his own blood!”
5. Skip the graph paper; “I’m not graphin’ nothin’ !”

**Purpose:** Introduce the theory, practice, and application of differential and integral calculus.

**Objectives:** Upon completion of this course, students will have:

1. Be able to evaluate, simplify, factor, or otherwise work with algebraic expressions, including exponential and logarithmic expressions.
2. Read the graph of a function and describe where it is increasing, decreasing, concave up, concave down, or equal to a particular number.
3. Add, subtract, multiply, or divide two functions. Evaluate the composition of two functions.
4. Describe what a limit is, and find a limit from a graph or from a function definition. Be able to recognize indeterminate forms.
5. Describe what a derivative is and be able to find derivatives for simple functions as well as exponentials, logarithms, products, quotients, and composites.
6. Apply the derivative in finding marginal functions, finding rates of change, graphing functions, optimizing functions.
7. Apply the anti-derivative in theory and practice

**Computer Access:** ThomsonNow (ilearn.com) is a required component of this course. You will need internet access either at home, **or** you may use the computers in the math lab in KOM 252.

**REQUIREMENTS:** In order to accomplish the objectives of this course, the learner is required to:

- 1) Attend class lectures.
- 2) Participate in class activities.
- 3) Read and study class assignments.
- 4) Solve assigned problem sets from the text and from MyMathLab.
- 5) Write tests and quizzes.

**TOPICAL OUTLINE:** This course consists of selected topics from the required text covering functions (polynomial, logarithmic, exponential), derivatives and their applications, and anti-derivatives.

**Attendance Policy**

Short version: Be here!

Longer version: Attendance is vital to success in the course. Attendance will be taken at the beginning of every class. You will be responsible for all material covered during each class period. If you are tardy it is YOUR responsibility to get on the roll. For absences due to inclement weather, call my office (904-8367) BEFORE the absence. You will have a very slim chance of passing (*hey-How is it that "Fat Chance" and "Slim Chance" mean the same thing?*) if you do not attend class.

*If you do not miss any more than one class for any reason (excused or not) and are not tardy and do not leave early more than once, you will receive **20 points** to your lowest test.* “Wow, that’s cool; what an awesome teacher (he must be looking for good evaluations–aka Tenure!)”

**Please note the following dates and information:**

Sept 10-Last day to drop without a grade

Oct 15-Last day to drop with a W

A grade of I will be given only in accordance with University Policy.

**Test and Grading:**

|                     |                           |
|---------------------|---------------------------|
| Tests (4)           | 100 points each           |
| Homework/Class work | 1/3 points missed on test |
| Quizzes (5)         | 25 points each            |
| Final Exam          | 200 points                |

**Tests** (From the Greek meaning “please beat me with a waffle iron.”)

There will be 4 given. There will be no make-up tests given. I will use the final exam grade to replace your missed test. Tests should be taken on the on the scheduled day. If you know ahead of time that you are going to be out, let me know.

**Homework.** I will tell you the section(s) that I will collect the class period before I take it. I will only spot check a few of the problems (generally between 1-5 problems that are representative of the assignment; and yes, they will generally be the **even** problems). The

homework will be **extra credit**. You will get up to **1/3** of the points you missed on the test depending on your homework grade. Suppose you made a 70% on test 1. This means that you missed 30 points. If you get 100% on the homework, you will get 1/3 of these points back (10) that will be added to your test to give you a grade of 80. If your homework grade is 80%, you will get 8 points added.

**Quizzes:** There will be 5 quizzes. I will count your **best 4**. These quizzes will generally be given at the beginning of the class. **No make-up quizzes will be given.** I will generally announce these quizzes one class period in advance.

**Final Exam:** (from Kataang that literally means: “I finally do love math”) The final exam is a comprehensive exam that is worth 200 points. You must take the final exams in order to pass the class.

**Other:** Participation is a must. Periodically we will work homework and class work problems on the board. You must be prepared to present these problems.

Obviously we cannot work every homework problem in class—maybe only one or two per class. It is your job to get these homework problems done before you come to class. So if you are having major problems doing the homework (“Could you work number 1?”), please come see me or go to the math lab. Remember that most of your learning will come outside of class.

### **Grading Scale**

|        |   |
|--------|---|
| 90-100 | A |
| 80-89  | B |
| 70-79  | C |
| 60-69  | D |
| 0-69   | F |

**Note: There is no plus/minus grading**

If you have a disability that may require assistance or accommodation, or you have questions related to any accommodations for testing, note takers, reader, etc., please speak with me as soon as possible. Students may also contact the Office of Disabled Student Services (898-2783) with questions about such services.

Only registered students may attend class. Children, visitors, or pets are not allowed. Also, turn off beepers or cellular phones while in class. Class disturbances will not be tolerated. Continuously disruptive students may be asked to leave class.

**Academic Misconduct:** Misconduct, Academic: Plagiarism, cheating, and other forms of academic dishonesty, or facilitating any such act will not be tolerated. Academic misconduct is a disciplinary offense, and I will punish such offenses to the highest degree allowed by the university. I will assign a grade of "F" for the exercise or examination for the first offence. If a second offense occurs, I will assign an "F" for the course. This policy includes writing answers from the back of the book without showing your work.

**Lottery Scholarship:** Students receiving the lottery scholarships must earn a 2.75 GPA after attempting 24 credit hours and a 3.0 GPA after attempting 48 hours or more. Students who drop below full-time status (12 hours) during the first 14 days of the semester will have their awards adjusted and will owe money to the University. Students who drop after the 14th day of class will have their future lottery scholarships suspended unless the drop was approved in advance by the Office of Financial Aid. Students may appeal the suspension if the drop is due to documented personal illness, illness or death of immediate family member, extreme financial hardship, military service, or other extraordinary circumstances beyond the student's control.

The lottery appeal form may be obtained at [www.mtsu.edu/financialaid/forms.htm](http://www.mtsu.edu/financialaid/forms.htm). For more lottery information please see [www.tennesseescholardollars.com](http://www.tennesseescholardollars.com).

### **Map to my office**

