

## DIFFERENTIAL CALCULUS LAB

(Math2200L, Call number: 32-409, Thursday 12:30 ~ 1:20 pm)

### 1. INSTRUCTOR INFORMATION

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**Office Hour** : Tuesday 1:00 ~ 3:00 pm, Thursday 1:30 ~ 3:30 pm, or by appointments.

### 2. COURSE INFORMATION

**Course Title** : Math2200L

**Call Number** : 32-409

**Course Date** : Thursday, August 21, 2003 ~ Thursday, December 4, 2003

**Course Time** : 12:30 ~ 1:20 pm

**Course Objectives** : The objectives of this course is to introduce you to a modern computer algebra system, called Maple, which helps with lengthy calculations, creates interesting graphic displays, and serves as a word processor for your reports. This course will help you to understand the concepts of function, limits, tangent line, derivatives, Newton's method, etc and develop basic programming skills using Maple and understand the basics of programming in general.

**Withdrawals** : A student that withdraws from Differential Calculus Lab(2200L) must also withdraw form the Differential Calculus Class(2200).

### 3. LAB MANUAL AND PROJECTS DUE DATES

They are available on the internet <http://www.math.uga.edu/calclab2200> to be downloaded on a machine equipped with Maple or to be viewed as html files. The topics and due dates are as follows:

- (1) : Course Introduction, Introduction to 2200L
- (2) : Welcome to Maple I, until September 4
- (3) : Welcome to Maple II, until September 18
- (4) : Quiz(New Introduction to 2200L), September 25
- (5) : Definition of derivative, until October 9
- (6) : Tangent Lines, until October 23

- (7) : Newton's Method, until November 13
- (8) : Analysis of a Graph, until December 4

#### 4. HOW TO WORK ON THE PROJECTS AND WRITE YOUR REPORT

The projects are for you to work. You are encouraged to collaborate with your fellow students-form a small group of two or three people with whom you can discuss possible approaches to a problem, share successes and failures, and enjoy each other's creative explorations. Although you should collaborate as you work the projects, you must write your lab report by yourself. You must will sign a statement at the end of each report giving credit to those with whom you worked and asserting that you wrote your own report. I follow all the rules in the Catalog, including those pertaining to grades and academic honesty

([http://www.uga.edu/ovpi/academic\\_honesty/academic\\_honesty.htm](http://www.uga.edu/ovpi/academic_honesty/academic_honesty.htm))

which you will find at the end of each project.

The following are about how to write you report

- (1) Your report on a project should be a clear and complete presentation of the project topic, the steps in your investigations of the topic, and the results of your investigations
- (2) Each report should begin with an introductory paragraph in which you introduce you topic and give an idea of the approach you will take to your investigation

#### 5. ATTENDANCE

Full participation in the course is required. A student may miss two or fewer classes without penalty. You must keep this opportunity for an emergency. A student who misses three or more classes will have his/her grade lowered by one letter grade or more. If you leave the class early without any excuse, your attendance will be ignored for the class. I will not allow you to make up a class that you miss. I will give you "F" if you miss five classes or more.

#### 6. GRADING POLICY

Your course grade will depend solely upon your project report grades, 1 quiz and attendance. Students who participate actively and complete every project can expect to receive an A or B. I will correct and return each project to you at the following class meeting if possible. There will be no chance to revise or redo each project. Your final course grade is based on the following measures:

- 5% Attendance

- 15% Quiz
- 80% Projects

The following scale will be used to determine final letter grades.

- A : Score  $\geq 85\%$
- B :  $70\% \leq$  Score  $< 85\%$
- C :  $60\% \leq$  Score  $< 70\%$
- D :  $50\% \leq$  Score  $< 60\%$
- F : Score  $< 50\%$

Please note that these are firm cut-offs for determining final grades. No rounding will occur in borderline situations – for example, a 70 is the lowest B; a percentage of 69.999 is a C.