MAT 2210L - INTEGRAL CALCULUS LAB

ALAN THOMAS – Boyd Rm 649 **PHONE 542-5961**

FFICE HOURS- **E-MAIL: alan@math.uga.edu**
Wed 12:20-1:10pm, Thurs. 12:30-1:45pm
Or By Appointment

INTRODUCTION

Welcome to MATH 2210L. The purpose of this lab is to illustrate the concepts of Calculus to you in an interesting and meaningful way. To accomplish this, we will be using a powerful Mathematical software package called Maple. Maple is not just a hyped up calculator; it has extensive graphing and animating abilities that you will utilize to actually *see* calculus at work, and symbolic capabilities that make your life easier. Many students feel that this lab is supposed to help them do better in the regular Calculus course. While a thorough understanding of the projects usually correlates with doing well in the regular course, **this lab is NOT a form of study guide for the tests**. The labs are designed to reinforce and illustrate what you are learning in the regular course. It is still very important to work homework problems from the regular course as assigned.

PROJECTS

There will be 6-9 projects assigned during the semester. You are expected to work on the projects one hour a week inside the lab class time and at least one hour a week outside of lab class time. Maple is available in most UCNS labs about campus; a list of these sites is on the door to the lab and on the lab web page. Also, Rm. 221 is open in the evenings and Rm. 308 is open most mornings; both are staffed with knowledgeable people to lend a helping hand. Although not required, you can also purchase your own copy of Maple at the UGA book store for around $130.00 (a steal, believe it or not).

HOW TO WORK ON A PROJECT

Each project begins with a tutorial that teaches you the Mathematics and Maple commands that you will need for that assignment. You must work through this tutorial before beginning the project. Afterwards, read the introduction to the project you are to work on, make your investigations, then write a report on your investigations by inserting explanatory paragraphs into your work. Laboratory reports will be graded on their mathematical accuracy and thoroughness. Students are to give explanations of each step in their lab report. A very important part of every report is the conclusion. The conclusion of each report should be clearly labeled and should answer the following questions: What did you like or dislike about the lab? What did you learn from the lab? How does the lab relate to topics in your lecture class? It is important that you put your name and class time at the top of every report. It is also very important that you sign the Academic Honesty Statement at the end of every report.

SUBMITTING HOMEWORK

You must turn in a printed copy of each of your labs by the **END OF CLASS** the day the lab is due. Late labs will incur a late penalty as described below. Our class lab printers are pay-by-the-page printers similar to the ones on the rest of campus, but some other labs have lower costs – such as the dorms. It is up to you to choose where to print. Be sure to keep a copy of all of your labs until the semester is over!

SAVE FREQUENTLY

Save your projects frequently, about every 10 minutes or so. Computers crash and work is lost on a regular basis. **You will be held responsible for any work lost**. Also, protect your disk from damage. A small disk case is a good idea and can be purchased from the bookstore.

COLLABORATION

Collaboration between classmates is encouraged. Exchange help, ideas, techniques, and what not. **HOWEVER, you must write your own reports, citing those you worked with**. Similar answers are fine, similar write-ups, descriptions, or explanations are not.

All students are responsible for maintaining the highest standards of honesty and integrity in every phase of their academic careers. The penalties for academic dishonesty are severe and ignorance is not an acceptable defense. For more information visit
http://www.uga.edu/ovpi/academic_honesty/culture_honesty.htm.

ATTENDANCE

I will not take attendance, but it is in your interest to come to class. You are responsible for all assignments and anything else we do in class.

GRADING

There will be one quiz that will count as a lab grade. At the end of the semester, I will drop your lowest lab grade. **If you do not turn in a lab, I will NOT drop that lab!** Your grade will be the average of the remaining labs. **Any late labs will be penalized 4 points a day**.

CLASS WEB PAGE

The class web page contains many items that you will find useful throughout the semester, including but not limited to the projects themselves. Check it frequently. The address is **www.math.uga.edu/calclab**.

WITHDRAWAL POLICY

If you drop this course at any time during the semester, you must also drop your MATH 2210 lecture course.

Please note, syllabus is subject to change at my discretion.