## M236 (Calculus Lab II) Spring, 2003

INSTRUCTOR: Dr. Hundley OFFICE: Olin 234 OFFICE HOURS: 10AM M,T,Th Feel free to schedule an alternative time to meet if you can't make these hours. Otherwise, if my door is open, feel free to come in. You can also email me anytime. OFFICE PHONE: 527-5151 EMAIL: hundledr@whitman.edu WWW: http://people.whitman.edu/~hundledr

## 1. Overview:

This course is a continuation of Calc Lab I- I will expect you to already know the basics of using LaTeX, Maple, and Emacs so you know how to do a basic write-up. Remember that there are handouts available on the web if you forget how to do certain things (like inserting figures).

In this course, we will focus on the use of Maple to solve and analyze differential equations- therefore, Differential Equations is a co-requisite (or you should have already taken it).

We will begin the course looking at the basics: What is a differential equation, what does it mean to "solve" a differential equation? We will then look briefly at how we can obtain numerical approximations to solutions when we cannot get an exact solution.

The second part of the course will be to model and analyze second order ODEs and we will look at an introduction to systems of differential equations.

The main difference this semester will be that we will do more labs, but each will be shorter- I have listened to your comments from last semester! While each topic will be substantially shorter (so the write ups will be faster), we won't have any re-writes. Take the comments from each lab, and apply the comments to the next lab.

- 2. Grading: Your grade will be based on the written reports you turn in. There will be no exams in this course. You will turn in 7 reports overall, each having equal weight towards the overall grade.
- 3. Group Work: You will do your assignments collaboratively with a partner. You will choose a partner at the beginning of each lab, and you may not switch partners until that lab is completed. It is your responsibility to make sure that your partner contributes fairly to the project.
- 4. **Plagarism:** Your write ups should be completely your own. You may consult only your ODE/Calc book for assistance, if required. If you do consult a book, be sure to cite the exact Chapter, Section and page in your report (either parenthetically or with a footnote). Violation of this policy will result in nasty things happening (as discussed in your college handbook).
- 5. Late Work: Late reports will NOT be accepted, so pay close attention to the due dates- they are on every other Monday.

## 6. Other items:

- (a) If you have a learning disability that will require special arrangements for you, I would be happy to do that- You will need to inform me as soon as possible if this is the case.
- (b) Absences: I will not take attendance, but you are expected to come to class and work with your partner. If you need to miss class or an appointment with your partner, please do them (and me!) the courtesy of an email.

## HOMEWORK/LAB SCHEDULE

Subject to Change

Week	Dates	Topic		
1	JAN 20-24	Lab 1: Analysis of ODEs		
		Lab partners assigned		
2	JAN 27-31	Continue to work on Lab 1		
		(Lab 1 DUE ON MONDAY, FEB 3)		
3	FEB 3-7	Intro to Lab 2		
4	FEB 10-14	Continue to work on Lab 2		
		(Lab 2 DUE ON MONDAY, FEB 17)		
5	FEB 17-21	Lab 3		
6	FEB 24-28	Continue to work on Lab 3		
		(Lab 3 DUE ON MONDAY, MAR 3)		
7	MAR 3-7	Lab 4 (Short lab)		
8	MAR 10-14	Continue to work on Lab 4		
		Lab 4 Due before you leave for Break!		
		Spring Break!		
9	MAR 31-APR 4	Lab 5		
10	APR 7-11	Lab Continue to work on Lab 5		
		(Lab 5 DUE ON MONDAY, APR 14)		
11	APR 14-18	Lab 6		
12	APR 21-25	Continue to work on Lab 6		
		(Lab 6 DUE ON MONDAY APR 28)		
13	APR 28-MAY 2	Lab 7		
14	MAY 5-9	Continue to work on Lab 7		
		Lab 7 Due on on the day we would have a Final		

Generally, each lab will run according to the following schedule:

$\operatorname{Sun}$	Mon	Tue	Wed	Thur	Fri	Sat
			LAB GIVEN			
			OPEN WEEK			
	LAB DUE					