$\frac{\text{Math 244 Fall 2009}}{\text{Syllabus}}$

INSTRUCTOR: Dr. Hundley OFFICE: Olin 234 OFFICE HOURS: TBA If you can't make these times, feel free to schedule a different time. You may also stop by anytime my office door is open, or email me. OFFICE PHONE: 527-5151 EMAIL: hundledr@whitman.edu CLASS WEBSITE: http://www.whitman.edu/~hundledr/courses/M244.html

1. COURSE INFO: Math 244

2. TEXT: Elementary Differential Equations (with or without Boundary Value Problems) 8th Edition. Boyce and DiPrima

At the end of this course, you will understand how differential equations are used to model some particular physical phenomena. You will understand what it means to *solve* a differential equation using algebraic methods and graphical methods, and what it means to analyze the behavior of said solutions. We will also discuss the underpinning theory that tells us when and over what regions the solutions will exist.

NOTE: In class, we will highlight important points from the text and homework, but we will not have time to discuss everything. It is very important that you do the reading and homework as soon as possible after is has been assigned!

3. Technological Assistance: Calculators are allowed, however calculators that can perform symbolic algebra will *not* be allowed on exams.

If you have had the Calculus Lab, you will find some extra material using Maple on our website.

- 4. Grading Criteria.
 - Exams. There will be three exams (Sept 25, Oct 23, and Nov 20 (that's the Friday before Thanksgiving Break). The exam dates will not change, so make your plans accordingly. The last exam will be the Final Exam, which we will take at the published time. Exams will make up 80% of the overall class grade (each is 20% of the overall grade).
 - Quizzes will make up 15% of the overall grade. There are 11 total, and you may drop your two lowest scores- You are allowed these drops in case you need to miss class, so don't use these drops unless you need them. *NOTE:* Make-up quizzes are allowed ONLY when your absence is college authorized (oversleeping for example, is not college authorized).

- Involvement: Attendance and participation are essential for learning. I am reserving 5% of your course grade for this portion- If you attend class on time and try your best to participate, then you will not need to worry about the 5%.
- Homework: The homework problems form the basis for the weekly quiz. It is expected that you will spend some time thinking about and completing the homework problems! Do not procrastinate- There is time during the beginning of each class meeting to discuss the previous day's homework assignment- This is an excellent time to ask questions!

Grading:

90-100%=A, 80-89%=B, 70-79%=C, 60-69%=D, 59 and below=F

I will use the plus/minus grading only sparingly in those borderline cases.

- 5. Help! I encourage you to come see me. If you can't make it during office hours, either email me if you have short questions, or make an appointment.
- 6. Academic Honesty. Academic standards will be *strictly* adhered to as outlined in the College's policies. This means that cheating will not be tolerated. Looking at another student's exam or quiz (whether or not you mean to copy answers) while taking it will be considered cheating. *Please don't test this policy!* Students caught cheating for the first time will fail the exam or quiz during which the cheating took place, and the Dean of Students will be notified. Continuation of this behavior will lead to an automatic failing grade for the course, and may include other administrative action.
- 7. If you are a student with a documented disability who will need accommodations in this course, please meet with Clare Carson in the Academic Resource Center (Mem 205) for assistance in developing a plan to address your academic needs. All information about disabilities is considered confidential; if I receive notification from Clare Carson that you are eligible for an accommodation, I will provide it in as discrete a manner as possible.

Additionally, I will be relying on you to contact me in advance of each session where you will need accommodations. Please do this early enough so that reservations can be made, where appropriate.

8. Please be courteous to your fellow students and to me: Class begins exactly on the hour, and the first 5-10 minutes are the most important, so please be on time (also see the 5% of your grade in the previous section). You should not use a laptop computer during class. Please silence your cell phone.

It was once thought that if we knew all the Laws of Nature, then we could verify all past events through all time, and we could know the future. Although it turns out (through Chaos theory) that this will be, practically speaking impossible even for very simple systems, it is true that many of the Laws of Nature are differential equations, therefore one cannot truly appreciate Nature until one understands its differential equations-