

**Fall 2007**  
**Math 376**  
**Differential Equations 1**  
**Bouillon 106, 11:00 - 11:50 MW and Bouillon 103, 11:00 - 11:50 F**

**Instructor:** Dr. Jim Bisgard

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**Office Hours:** MW 1:00 - 1:50, TTh 10:00 - 10:50, and by appointment.

**Course Goals:** The goal of the course is to introduce you to the ideas of differential equations: how to use analytic, graphical and/or numerical methods to investigate the solutions of differential equations, as well as how to derive differential equations to describe phenomena in different sciences.

**Required Text:** Logan, J. David; A First Course in Differential Equations; Springer Verlag  
We will cover all of Chapter 1 and 2, Sections 3.1-3.3 of Chapter 3, Sections 5.1-5.4 of Chapter 5, and portions of Chapters 4 and 6 (as time allows).

**Computer Requirements:** We will be in the computer lab every Friday, and your homework assignment will often have at least one problem that you'll need to use the computer for. We will be using two java programs for the class. They may be found at:  
<http://math.rice.edu/~dfield/dfpp.html>. It is not a requirement, but it will be very, very helpful to have access to a computer outside lab that will run these programs. The computers in Bouillon 103 certainly run these, as do many of the computer's in the various labs on campus.

## 1 Grades/Exams/Homework

- Grades

Grades will be calculated using the following weighting system:

Exams: 50% total, broken up as follows: 20% for the mid-term and 30% for the final;

Homework: 50%;

and the following scale:

	87 – 89.9 : B+	77 – 79.9 : C+	67 – 69.9 : D+	below 60 : F
93 – 100 : A	83 – 86.9 : B	73 – 76.9 : C	63 – 66.9 : D	
90 – 92.9 : A–	80 – 82.9 : B–	70 – 72.9 : C–	60 – 62.9 : D–	

- Exams

There will be one exam during the course of the quarter, and a final exam on December 6. The exam during the quarter will be on Friday (so that you have the option of using the computer) October 26. The final exam will be cumulative.

- Homework

We will have weekly homework assignments. To do some of the problems, you might need to use your computer. You may work with your classmates on homework (and in fact, I encourage you to do this!), but you should write your solutions using your own words. In addition, your homework must be neat and legible, and written using complete sentences where appropriate. (For example, you do not have to try and write out  $(e^{x^2})' = 2xe^{x^2}$  using complete sentences.)

## **2 Important Dates**

September 25 - Last Day for Add/Drop

October 26 - Mid-term Exam

November 2 - uncontested withdrawal deadline

December 6 - final exam

## **3 Legalese/Fine Print**

*Students with disabilities who wish to set up academic adjustments in this class should give me a copy of their “Confirmation of Eligibility for Academic Adjustments” from the Disability Support Services Office as soon as possible so we can discuss how the approved adjustments will be implemented in this class. Students without this form should contact the Disability Support Services Office, Bouillon 205 or [dssrecept@cwu.edu](mailto:dssrecept@cwu.edu) or 963-2171.*