

Fall 2014
Math 376: Differential Equations 1
Section 1: Bouillon 109, 9:00 - 9:50 MWF
Section 2: Bouillon 109, 10:00 - 10:50 MWF

Instructor: Dr. Jim Bisgard

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Office Hours: TTh 9:00 - 10:50, MW 11:00 - 11:50, 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. More precisely, we will study first and second order equations. Topics for first order equations include slope fields, bifurcation diagrams and how they describe qualitative behavior. In addition, we will learn some analytic solution techniques including separation of variables and integrating factors. For second order equations, we shall look at the relation between the phase plane and qualitative behavior of solutions, as well as analytic techniques of solution such as the method of undetermined coefficients and variation of parameters. In terms of our text, we will cover most of Chapters 1, 2, and 3.

Required Text: Noonburg, Virginia W.;

Ordinary Differential Equations: From Calculus to Dynamical Systems; published by MAA

1 Grades/Exams/Homework

- Grades

Grades will be calculated using the following weighting system:

Exams: 55% total, broken up as follows: 15% for each mid-term and 25% for the final;

Homework: 45%;

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 two exams during the course of the quarter, and a final exam. The exams during the quarter will be Friday, October 17 and Wednesday, November 5. The final exam will be cumulative. Section 1 has its Final Exam on Tuesday, December 9. Section 2 has its Final Exam on Monday, December 8.

- Homework

We will have weekly homework assignments. They will be handed out on Wednesday, and be due the following Wednesday at 2:00. To do some of the problems, you might need to use a 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.

- Late Policy

Homework is due at 2 pm on its due date. Homework handed in after that time on its due date will lose 5 points immediately, and 5 more points for every 24 hours after. That means: if you hand in homework at 2:30 on Wednesday, you can earn at most 20 out of 25 on your homework. If you hand in your homework on Thursday at 2:30 pm, you can earn at most 15 out of 25, since over 24 hours will have passed.

2 Important Dates

September 30 - Last Day for Add/Drop

October 17 - Mid-term Exam #1

November 5 - Mid-term Exam #2

November 7 - uncontested withdrawal deadline

December 9 - final exam for 9:00 section

December 8 - final exam for 10:00 section

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 140 or ds@cwu.edu or 963-1202.