

**Differential Equations with Applications**  
**MATH 4512**

**Instructor: Bernardo Cockburn. Office: Vincent Hall 327**

Fall 2016 schedule: MWF 10:10-11:00, Vincent Hall 2

- **Objective:** In this course, we study several basic aspects of differential equations modeling phenomena of interest in physics and engineering.
- **Textbook:** *Differential Equations and their Applications*, by Martin Braun, Springer, 1993 (4th. edition). We will cover the first four chapters.
- **Grade:** 40% homeworks (seven homeworks, the best six scores are kept), 30% midterms (three midterms) and 30% final (on December 21, 8:00-10:00am).
- **Office hours:** By appointment **only**. To get one, just send me an e-mail to cockburnmath.umn.edu.

	classes			subsections		
Sept. Chapter 1	–	7	9	–	§1.2	§1.4
	12	14 <b>HW</b>	16	§1.5	§1.8	§1.10
	19	21	23	§1.13	§1.13	§1.15
	26 <b>HW</b>	28 <b>RV</b>	30 <b>MT</b>	§1.16		
Oct. Chapter 2	3	5	7	§2.1	§2.2	§2.3, 4
	10	12 <b>HW</b>	14	§2.5	§2.6	§2.6
	17	19	21	§2.9, 10	§2.11	§2.12
	24 <b>HW</b>	26 <b>RV</b>	28 <b>MT</b>	§2.13		
Nov. Chapter 3	31	2	4	§3.1, 2	§3.3, 4	§3.5, 6
	7	9 <b>HW</b>	11	§3.7	§3.8	§3.9
	14	16	18	§3.10	§3.11	§3.12
	21 <b>HW</b>	23 <b>RV</b>		§3.13		
Dec. Chapter 4	28 <b>MT</b>	30	2		§4.1	§4.2
	5	7	9	§4.3	§4.4, 5	§4.6, 7
	12 <b>HW</b>	14 <b>RV</b>	–	§4.8		
	–	21 <b>F</b>				

Homework = **HW**, Review = **RV**, Mid-Term = **MT**, Final = **F**.