

MATH*3100 COURSE OUTLINE – DIFFERENTIAL EQUATIONS II (FALL 2015)

Instructor: Jeremy Levick jlevick@uoguelph.ca

Office Hours: Tues 1:30-2:30, Fri 1:30-2:30, and by appointment MACN 543
Office Hour times are subject to change – check the course website

TA: Marianne Waito

Prerequisite: (MATH*2130 or PHYS*2440), (MATH*2150 or MATH*2160), MATH*2170

Lectures: Mon/Wed/Fri 12:30pm – 1:20pm ANNU 156

Labs: Thursdays 4:30pm – 5:20pm MCKN 116

Course website: Found on CourseLink website <https://courselink.uoguelph.ca/shared/login/login.html>

Textbook (Recommended): Elementary Differential Equations and Boundary Value Problems (10th edition, 2012) by William E. Boyce, Richard C. DiPrima

Course description: First order linear systems and their general solution by matrix methods. Introduction to nonlinear systems, stability, limit cycles and chaos, using numerical examples. Solution in power series of second order equations including Bessel's equation. Introduction to Partial Differential Equations and applications.

LEARNING OBJECTIVES

This course builds upon MATH*2170 to provide a modern understanding of both linear and nonlinear ordinary differential equations, and to prepare students for further study of partial differential equations and of dynamical systems.

Tips for Success: Be “active” when you study: don’t just read through your notes and assignments, re-do all examples and homework exercises without looking at the solution. It is one thing to look at a solution and say “that looks easy; I can do that” and another thing to actually do it!

There are exercises at the end of each chapter in the textbook. You are encouraged to do as many of them as it takes for you to feel confident in your abilities.

COURSE WORK AND DATES

Midterm	Sat. Oct. 31	9:00am – 11:00am	RICH 2520
Final Exam	Wed. Dec. 09	7:00 pm – 9:00 pm	Room TBA

	Due Date
Lab #1	Thurs. Sept. 17
Lab #2	Thurs. Sept. 24
Lab #3	Thurs. Oct. 1
Lab #4	Thurs. Oct. 8
Lab #5	Thurs. Oct. 15
Lab #6	Thurs. Oct. 22
Lab #7	Thurs. Oct. 29
Lab #8	Thurs. Nov. 5
Lab #9	Thurs. Nov. 12
Lab #10	Thurs. Nov. 19
Lab #11	Thurs. Nov. 26

Please hand in labs at the end of each lab.

In the case of *any* questions or concerns regarding the marking of a lab or test, please discuss the issue with the instructor (not the TA).

When You Cannot Meet a Course Requirement: Late or omitted labs, missed midterms and final exam considerations are discussed in the 2013-2014 Undergraduate Calendar: VIII. Undergraduate Degree Regulations and Procedures. Types of consideration are limited to Medical, Psychological, and Compassionate. “Knowledge of the procedures, early action on the student’s part, timely consultation with the instructor(s) and/or program counsellor, and immediate provision of any required documentation will facilitate a prompt, co-ordinated institutional response.”

Academic Misconduct “is behaviour that erodes the basis of mutual trust on which scholarly exchanges commonly rest, undermines the University’s exercise of its responsibility to evaluate students’ academic achievements, or restricts the University’s ability to accomplish its learning objectives.”¹

The University takes a serious view of academic misconduct: please take the time to read the appropriate section in the 2013-2014 Undergraduate Calendar: VIII. Undergraduate Degree Regulations and Procedures.

¹2013-2014 Undergraduate Calendar: VIII. Undergraduate Degree Regulations

GRADING

Your grade will be based on lab work, one midterm, and a final exam.

Labs	20%
Midterm	30%
Final Exam	50% (Dec. 9, 7:00 pm, location TBA)
	100%

Note on Labs: You will be given questions ahead of time to work on in groups in the lab. The lab instructor will monitor group work and help out as needed. At the end of each lab, work done in the lab is to be handed in for assessment.

Drop Policy: The lowest two labs marks will not count towards the final grade.

Note on Marking: Clarity of your answers is taken into account when grading. If you are writing up solutions to an assignment and are unsure of whether or not your answers are clear, try reading them out loud. Still unsure? Come see me during my office hours.

Drop Date: The last date to drop this course without academic penalty is Friday, Nov. 6. For regulations and procedures on Dropping Courses, see the Undergraduate Calendar: VIII. Undergraduate Degree Regulations.

Accessibility: The University of Guelph is committed to creating a barrier-free environment. Students requiring service or accommodation, whether due to an identified, ongoing disability or a short-term disability should contact the Centre for Students with Disabilities as soon as possible. For more information, contact CSD at 519-824-4120 ext. 56208 or email csd@uoguelph.ca.