

Math2208 Course Outline

S. Rodney, Cape Breton University Mathematics

Jan.-Apr. 2024

1 Course Information

- **Instructor: Prof. S. Rodney**, A129-B
Cape Breton University Dept. Mathematics, Physics, & Geology
- **Contact:** Email: scott_rodney@cbu.ca
- **Schedule: M-W 410-525pm A-230**
 - **Lab Schedule: F 100-400pm A-230**
 - Lab Instructor: J. Makary, M.Sc.
- **Text Book:** We are following Elementary Differential Equations, enhanced e-text, 11th ed. by Boyce, Diprima, and Meade. ISBN: 978-1-119-32063-0

2 Topics

In this course you will explore how differential equations are used in the sciences to model different phenomena while also gathering mathematical techniques essential for a modern education in the sciences and engineering. Here are the major sections we will cover in the text.

Chapter 1	Why diff. Eq.s? Whats a solution? Classification of DEs
Chapter 2	First Order Equations (linear, separable, exact)
Chapter 3	Second Order Equations (Linear equations)
Chapter 4	n^{th} order linear equations
Chapter 5	Series solutions to second order equations
Chapter 6	Laplace transforms and systems of linear equations

3 Evaluation

In this course you have a lab session where you explore your newly formed methods and ideas and is an important part of your evaluation. It is strongly recommended that you try to attend all labs. You may contact Mr. Makary if you have further questions. Aside from your lab experiences, you will be evaluated using homework, a midterm test and a cumulative final exam. Here is the breakdown:

Homework	10%
Lab	20%
MidTerm	25%
Final Exam	45%

Your midterm test will be written during the 6th week of class but may be moved due to unforeseen circumstance. Your final exam will be written in a location specified by the office of the Registrar at CBU. Keep an eye out for the final exam shedule.

Missing a Test: It is important to note that there are no supplemental exams or tests available for this course. If you miss the midterm for a justifiable reason (Medical (doctor note required), or other), we will reschedule your test to accommodate your needs. Missing your final exam is a serious issue. If the absence is justifiable, we will accommodate you. If it is possible, it is best to inform your professor of an upcoming absence as soon as possible.

4 Other Items:

- **Attendance:** While it is customary that attendance is not taken in a university level course, it is important that each student attend all lectures. Missing several lectures during the term is to your academic detriment. If you will miss a class, you may contact Dr. Rodney in order to make up material with appropriate reading. If you have a personal issue causing conflict with the writing of a midterm or other test and have proper documentation, a new time will be found to accommodate you. If your conflict is with your scheduled final exam, notify Dr. Rodney as early as possible as this is a serious issue.
- **Inclement (bad) Weather:** If the school is closed due to weather, course content will be made up if necessary. Please see the CBU Inclement Weather Policy in your course calendar.
- **Course Conflicts:** If you are having difficulty with course material, you are encouraged to visit Dr. Rodney during office hours or by appointment. If your conflict is with course design or grading, please see Dr. Rodney during office hours in order to clarify your issue. If no resolution can be found, you are encouraged to discuss the matter with the chair of the department of mathematics at CBU, Mr. C. Pyne (chester_pyne@cbu.ca).