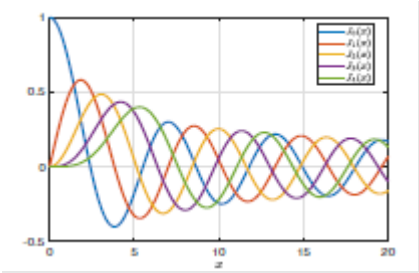
Department of Mathematics & Statistics
Concordia University

MATH 370
Ordinary Differential Equations
Fall 2025



Instructor*: _____

Office/Tel No.: _____

Office Hours: _____

*Students should get the above information from their instructor during class time. The instructor is the person to contact should there be any questions about the course.

Course Topics and Goals: Over the semester students will be taught to recognize, interpret, and solve various differential equations and boundary value problems. Course topics include separable equations, exact equations, integrating factors, first order linear equations, second order equations, applications of differential equations, series solutions, reduction of order, variation of parameters, the Laplace transform, and higher-order linear equations with constant coefficients.

Prerequisites: MATH 265, MATH 251, or equivalent.

Textbook: *Elementary Differential Equations and Boundary Value Problems*, 12th Edition, by William E. Boyce and Richard C. DiPrima (Wiley).
The print version of the textbook will be available at:
https://www.bkstr.com/concordiastore/home
Note: Students should order textbooks as early as possible, especially for print versions in case books are back ordered or there are any shipping delays.

- We will cover most of the chapters 1 through 5 of the textbook, as well as some of chapter 6 if time permits.
- You can use an older edition as well. The homework problems will be posted on Moodle, and the textbook organization/content doesn't seem to change much between editions.

Assessments: Your grade in this course will be assigned according to whichever of the two percent systems below result in the highest grade:

50% Final Exam
30% Midterm
20% Assignments

or

80% Final Exam
20% Assignments

If the grading scheme for this course includes graded assignments, a reasonable and representative subset of each assignment may be graded. Students will not be told in advance which subset of the assigned problems will be marked and should therefore attempt all assigned problems.

Assignments: There will be weekly assignments. Assignments are very important; they indicate the level of difficulty of the problems that the students are expected to understand and solve. Therefore, every effort should be made to do and understand them *independently*. The assignments will be corrected and a representative sample graded (some problems may be not graded), with solution sets posted after the due date. Late assignments will **not** be accepted without a legitimate excuse and prior approval.

Midterm Break: No classes between October 11 and October 17, 2025.

Tests: This course will have a midterm test and final examination. The midterm will cover material from chapters 1-3 (inclusively) and will take place in class. The final exam will cover all material covered in the course.

NOTE: It is the Department's policy that tests missed for any reason, including illness, cannot be made up. If you missed the midterm because of illness (to be confirmed by a valid medical note) the final exam can count for 80% of your final grade, and 20% will be contributed by the assignments.

PLEASE NOTE: Students are responsible for finding out the date and time of the final exam once the schedule is posted by the Examination Office. Any conflicts or problems with the scheduling of the final exam must be reported directly to the Examination Office, **not** to your instructor. It is the Department's policy and the Examination Office's policy **that students are to be available until the end of the final exam period. Conflicts due to travel plans will not be accommodated.**

Web Resources: The textbook publisher**,** Wiley, operates an excellent web resource that accompanies the textbook, which includes many animated illustrations of the textbook concepts.

Calculators: Electronic communication devices (including cell phones) are not allowed in examination rooms. Only calculators approved by the Department (with a sticker attached as proof of approval) are permitted for the class test and final examination. For a list of Approved calculators see https://www.concordia.ca/artsci/math-stats/services.html#calculators

Student Services
You may wish to access the many services available to you as a Concordia student. An overview of these resources can be found here: https://www.concordia.ca/students/services.html

Academic Integrity and the Academic Code of Conduct
This course is governed by Concordia University's policies on Academic Integrity and the Academic Code of Conduct as set forth in the Undergraduate Calendar and the Graduate Calendar. Students are expected to familiarize themselves with these policies and conduct themselves accordingly. "Concordia University has several resources available to students to better understand and uphold academic integrity. Concordia's website on academic integrity can be found at the following address, which also includes links to each Faculty and the School of Graduate Studies: https://www.concordia.ca/conduct/academic-integrity.html" *[Undergraduate Calendar, Sec 17.10.2]*

Behaviour
All individuals participating in courses are expected to be professional and constructive throughout the course, including in their communications.

Concordia students are subject to the Code of Rights and Responsibilities which applies both when students are physically and virtually engaged in any University activity, including classes, seminars, meetings, etc. Students engaged in University activities must respect this Code when engaging with any members of the Concordia community, including faculty, staff, and students, whether such interactions are verbal or in writing, face to face or online/virtual. Failing to comply with the Code may result in charges and sanctions, as outlined in the Code.

Intellectual Property
Content belonging to instructors shared in online courses, including, but not limited to, online lectures, course notes, and video recordings of classes remain the intellectual property of the faculty member. It may not be distributed, published or broadcast, in whole or in part, without the express permission of the faculty member. Students are also forbidden to use their own means of recording any elements of an online class or lecture without express permission of the instructor. Any unauthorized sharing of course content may constitute a breach of the Academic Code of Conduct and/or the Code of Rights and Responsibilities. As specified in the Policy on Intellectual Property, the University does not claim any ownership of or interest in any student IP. All university members retain copyright over their work.

Extraordinary circumstances
In the event of extraordinary circumstances and pursuant to the Academic Regulations the University may modify the delivery, content, structure, forum, location and/or evaluation scheme. In the event of such extraordinary circumstances, students will be informed of the change.

Accommodations for Students with Disabilities
If you need accommodations for classes, assignments, or exams, please contact me and the Access Center for Students with Disabilities. Website: https://www.concordia.ca/students/accessibility.html

Counselling and Psychological Services
Counselling and Psychological Services offers short-term counselling to register Concordia students who are in Quebec. Appointments can be either virtual and in-person. Website: https://www.concordia.ca/health/mental-health.html