

MATH 473 (MAST 666/MAST 841), Sec. A
Partial Differential Equations
Winter 2024

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Class Schedule: Tuesdays & Thursdays, 11:45-13:00.

Office hours: Tuesdays, 10:00-11:30 a.m.

Prerequisites: **MATH 264/265** or an equivalent multivariable calculus course.
MATH 370 or an equivalent course in ordinary differential equations.

Required Textbook: [Partial Differential Equations: A First Course](#), Rustum Choksi, 2022
AMSTEXT/54, ISBN-13: 978-1-4704-6491-2; **eBook** ISBN: 978-1-4704-6867-5.
An errata to this book is [here](#).

Advanced Level: [Partial Differential Equations](#), Lawrence C. Evans, 2010,
Graduate Studies in Mathematics, Vol. 19, AMS; ISBN-13: 978-1-4704-6942-9;
eBook ISBN: 978-1-4704-1144-2.

The textbook is available online at Concordia University library.

Topics: The following topics outline the content of the lectures: first-order PDE and the method of characteristics; the wave equation; the diffusion equation; Laplace's equation and harmonic functions; fundamental solutions and Green's functions; Fourier series; boundary value problems.

Graduate students will complement this content by guided independent study on more technical aspects of these topics, or other topics at the instructor's recommendation depending on individual mathematical interests, current background, and areas of study.

Final Grade: Homework 20%, Midterm Evaluation 30%, Final Evaluation 50%.
Undergraduate and graduate evaluations will differ in content.

The homework will be assigned approximately every two weeks, during class, and posted on Moodle. In case of a student's absence or late arrival, it is the student's responsibility to seek the assignment online and submit it on time. **No late assignments will be accepted.**

The midterm exam is scheduled for Thursday, March 7th in class. Please be aware that a missed test cannot be made up.

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.

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]

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