Carleton University, School of Mathematics and Statistics
Math 1005G • Differential Equations and Infinite Series
Course Outline • Winter Term 2022

INSTRUCTOR: Brandon Fodden *brandon.fodden@carleton.ca*
Online office hour: Monday 1:30 - 2:30 p.m.
(if no one is there, I will leave after 2:00 p.m.)

LECTURES: Online and asynchronous, posted Tuesdays and Thursdays

TUTORIAL: Online, Thursdays at 4:35 – 5:25 p.m.

PREREQUISITES: Math 1004, and
Math 1104 (or Math 1107) either previously or concurrently.

TEXT: *Ordinary Differential Equations and Infinite Series*, 2nd ed.
by Sam Melkonian.   Hard copy in campus bookstore, or
eBook from campus bookstore website.

GRADING SCHEME:

Assignments (3)	30%
Tests (2)	40%
Final exam	30%

Topics: First-order differential equations. Second-order linear equations with constant coefficients, undetermined coefficients, variation of parameters. Sequences and series, convergence tests, estimation of sums. Power series, Taylor series, remainders. Fourier series.

Pregnancy or religious obligation: Write me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, see the Student Guide.

Students with disabilities requiring academic accommodations in this course must register with the Paul Menton Centre for Students with Disabilities (PMC) for a formal evaluation of disability-related needs. Documented disabilities include but are not limited to mobility/physical impairments, specific Learning Disabilities (LD), psychiatric/psychological disabilities, sensory disabilities, Attention Deficit Hyperactivity Disorder (ADHD), and chronic medical conditions. Registered PMC students are required to contact the PMC every term to have a Letter of Accommodation sent to the Instructor by their Coordinator. In addition, students are expected to confirm their need for accommodation with the Instructor no later than two weeks before the first assignment is due or the first in-class test/midterm. If you require accommodations only for formally scheduled exam(s) in this course, you must request accommodations by the official accommodation deadline published on the PMC website.

COMMENTS:

- All times given in this document refer to the EST/EDT (eastern standard/daylight time) timezone, in which Ottawa is located. All course material is posted on Brightspace. Be sure to check your Carleton email address throughout the term, as this is how I will communicate any course updates and information. This course is blended, which means that there are both asynchronous and synchronous components.
- **Assignments are due on the following dates:**

  January 25, March 1, and March 29.

  Assignments will be posted a week before they are due, and will cover the material from the lectures that are posted on the days up to and including the day the assignment is posted. Students must write their own assignments in their own words.
- Assignments must be submitted as a single PDF file. There are numerous free scanning apps for phones that will allow you to do this. Assignments must be legible in order to be graded.
- **Tests will take place on the following dates:**

  February 8 and March 15.

  The test is available to take over a 24 hour period, and it ends 60 minutes after it is started. You may access the course material that has been posted to Brightspace during the tests, as well as your notes and textbooks, but must not communicate with others about the tests while the test is open.
- No provision is made for make-up assignments or tests. If you must miss an assignment or quiz for a valid reason, please contact me.
- The live online tutorial runs every week on Thursdays from 4:35 to 5:25 p.m., starting January 20. A set of tutorial problems will be posted on a few days before the tutorial. During the tutorial session, a TA will work out selected tutorial problems and answer your questions. The online tutorials are recorded and available for viewing afterwards.
- The final exam is to be scheduled by the University. The date and time will be announced by the university at some point during the term (the exam will be held some time between April 14 and 28). The exam will be run online.
- Students who miss the final exam may be eligible for a deferred exam. Application for a deferral must be made, with appropriate documentation, to the Registrar's Office.
- In an asynchronous class, it can be too easy to put off watching the lectures. Take care to not fall behind.
- Plagiarism and cheating will not be tolerated and can lead to severe penalties. Note that the dean's office has recently increased the penalties for cheating. Your assignments, quizzes and exam must be your own work, and you must not communicate with others about the quiz and exam while they are running. This includes the use of "homework help" websites, whether the questions are posted by you or another student.
- Student or professor materials created for this course (including any posted notes, video lectures, tutorials, assignments, quizzes, and tests) remain the intellectual property of the author. They are intended for personal use and may not be reproduced or redistributed without prior written consent of the author.

EXTRA HELP:

There is help available for this course. It is up to you to seek any help you may need. Please do not hesitate to take advantage of the help being offered – that's why it's there! Here is a summary of the help available:

- Class tutorial (see front of sheet)

- Your TA (email)

- My office hours (see front of sheet), or email