

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

**TIME OF LECTURES:** Mon Wed 1:05 – 2:25  
**INSTRUCTOR:** Brandon Fodden  
 Office: Herzberg 4356  
 Office hours: to be announced

**ROOM:** Kailash Mital Theatre  
[brandon.fodden@carleton.ca](mailto:brandon.fodden@carleton.ca)

**TUTORIAL:** Mon 2:35 – 3:25 in various locations

**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, eBook at [campusebookstore.com/EBooks/Book.aspx?ID=9689094](http://campusebookstore.com/EBooks/Book.aspx?ID=9689094)

<b>GRADING SCHEME:</b>	Tests (best 3 out of 4)	45%
	Final exam	55%

**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:

- Be sure to check your Carleton email address frequently. This is the main way that I can communicate with the entire class quickly. For example, if I am to miss a class due to illness, I would send an email out.
- A Discord server for this class will soon be set up. This will be a place to ask questions to me and other students, and to easily share class notes for any classes you miss. More information on the server will be given soon through an email.
- The tests will be held during the tutorial sessions on the following dates:

Test 1: **Monday, October 3**      Test 2: **Monday, October 31**  
Test 3: **Monday, November 14**    Test 4: **Monday, November 28**

- If you miss a test due to illness or another valid reason, please email me for accommodation information. Note that this will not include a make-up test.
- The final exam is a three hour in-person closed book test to be scheduled by the University. The date, time, and location will be announced at some point during the term.
- 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 within three working days after the examination.
- Non-graphic, non-programmable calculators are permitted during the tests and the final exam. No cell phone calculators are allowed.
- Plagiarism and cheating will not be tolerated and can lead to severe penalties – consult the undergraduate calendar.
- During the tutorial sessions, a TA will be present to work out selected problems, to answer questions, and to administer the tests. The first tutorial is on Monday September 19.
- Any classes I miss due to illness may be replaced with an online lecture.
- You are expected to attend all lectures (unless you are ill – see below). If you miss a lecture, it is your responsibility to understand all material from that lecture, and to get any information given.
- Please do not attend class if you are sick, even if you are sure that it's "just a cold." If you miss classes due to illness, you can ask your classmates for the class notes on the course Discord server.
- Student or professor materials created for this course (including any posted notes, tutorials, assignments, quizzes, and tests) remain the intellectual property of the author(s). They are intended for personal use and may not be reproduced or redistributed without prior written consent of the author(s).

## A NOTE FROM CARLETON ABOUT COVID:

It is important to remember that COVID is still present in Ottawa. The situation can change at any time and the risks of new variants and outbreaks are very real. There are [a number of actions you can take](#) to lower your risk and the risk you pose to those around you including being vaccinated, wearing a mask, staying home when you're sick, washing your hands and maintaining proper respiratory and cough etiquette.

Feeling sick? Remaining vigilant and not attending work or school when sick or with symptoms is critically important. If you feel ill or exhibit COVID-19 symptoms do not come to class or campus. If you feel ill or exhibit symptoms while on campus or in class, please leave campus immediately. In all situations, you must follow Carleton's [symptom reporting protocols](#).

Masks: Carleton has paused the [COVID-19 Mask Policy](#), but continues to strongly recommend masking when indoors, particularly if physical distancing cannot be maintained. It may become necessary to quickly reinstate the mask requirement if pandemic circumstances were to change.

Vaccines: Further, while proof of vaccination is no longer required as of May 1 to attend campus or in-person activity, it may become necessary for the University to bring back proof of vaccination requirements on short notice if the situation and public health advice changes. Students are strongly encouraged to get a full course of vaccination, including booster doses as soon as they are eligible, and submit their booster dose information in [cuScreen](#) as soon as possible. Please note that Carleton cannot guarantee that it will be able to offer virtual or hybrid learning options for those who are unable to attend the campus.

All members of the Carleton community are required to follow requirements and guidelines regarding health and safety which may change from time to time. For the most recent information about Carleton's COVID-19 response and health and safety requirements please see the [University's COVID-19 website](#) and review the [Frequently Asked Questions \(FAQs\)](#). Should you have additional questions after reviewing, please contact [covidinfo@carleton.ca](mailto:covidinfo@carleton.ca).