

Calculus for Engineering or Physics

Carleton University, Mathematics 1004

Updated Aug. 30, 2022

This site can be used by all students (except for test dates, etc.) registered in MATH 1004 during the Fall/Winter Term regardless of section.

TEXTBOOK:

For the **2022 Digital edition** of The ABC's of Calculus, go to mingarelli.com and order it for the term, i.e., 150 days, for \$80. VISA and Cryptocurrency supported.

Softcover copies are now available in HP 4380 for \$100 (net/tax in); cash or e-transfer only to thenolanco@gmail.com - no credit cards.

Solutions Manual for 2022 Pandemic edition of the above textbook

[Click here](#)

Solutions Manual for 2019/2020/2021 edition of the above textbook

[Click here](#)

OFFICE HOURS: TBA, check with your instructor

Twitter: @amingarelli

[Youtube](#) (myawesomemathprof channel- created by your classmates during the 2011-2012 academic year)

Tell us what you think about our teaching [at Rate My Professors.com](#)

Calculators: Non-programmable ones only.

INSTRUCTOR: Dr. Angelo Mingarelli or ask your Instructor,

OFFICE: Herzberg Physics Building, 4380.

(During the pandemic email or zoom is key).

Telephone: Normally 613 520 2600 ext. 2162 (Contact AM by email these days.)

Classes start: September 7, 2022

NOTE: Classes should be in person, as is usual, unless otherwise notified.

Winter classes end: December 9, 2022

Important dates

The last date to drop your class this fall is November 11, 2022.

Classes and Tutorials

Math 1004A: Classes are on Mondays and Wednesdays at 16:05 in Azrieli Theatre 101

MATH 1004A Tutorials: Wednesdays at 17:35

Surname Section Room

A- Cal	A1	Southam 406
Car-Gul	A2	Southam 317
Hai-Mal	A3	Southam 318
Mann-Rez	A4	Southam 403
Ri-Z	A5	Southam 402

Examples:

Your family name (surname) is Doe, you are in Section A2, and go to Room 317 in Southam Building.

Your family name (surname) is Manning, you are in Section A4, and go to Room 403 in Southam Building...

Math 1004B: Classes are on Tuesdays and Thursdays at 14:35 in Richcraft Building, 2200

MATH 1004B Tutorials: Thursdays at 13:35

Surname Section Room

A- Bri	B1	Southam 316
Bu-Gran	B2	Southam 406
Gras-Mcg	B3	Southam 317
Mck-Ras	B4	Unicentre 376
Rav-Z	B5	Southam 516

[How to study for this course \(my idea\)](#)

[How to study for this course \(someone else's idea\)](#)

Email: angelo.mingarelli@carleton.ca

Private tutors: zitateaching@gmail.com, super.sam@hotmail.com.

Please contact them directly, they are both excellent!

Detailed Course Outline (for Dec 23, 2022 edition of text)

WEEK	TESTS/ASSG	SECTIONS	TOPICS
1		Chapter 1 (all) Intro Ch. 2	Functions, Trig. Chapter 10
2		Chapter 2 (all) 3.1-3.3	Limits and continuity, Evaluating and guessing limits at infinity, Derivatives and the Chain rule.
3		Sections 3.4-3.8	Implicit functions, Derivatives of trigonometric functions, Inverse functions,
4	Assignment 1	Sections 3.8-3.9	Inverse trigonometric functions and

			their derivatives, L'Hospital's Rule
5	TEST 1	Sections 4.1-4.6 (all) Chapter 5	Exponentials, logarithms and their derivatives. Curve sketching basics
6		Chapter 6.1- 6.4 (all) Chapter 7.1 - 7.2	Anti-derivatives, Indefinite integral, Summation, Area, Definite integral, Area, Trig identities (review), Integration by substitution (change of variable)
7	FALL BREAK (OCT. 24-28)	NO CLASSES	NO CLASSES
8	ASSIGNMENT 2	Chapter 7.3 and 7.3.1-7.3.4	Integration by parts (incl. all subsections)
9		Chapter 7.4 and 7.4.1-7.4.2	Integration of Partial fractions,

		Chapter 7.5.1	Integration of powers of sines and cosines,
10	TEST 2	Chapter 7.5.2 and 7.6, (7.6.1-7.6.2) and 7.7	Integration of powers of secants and tangents Trigonometric substitutions, (incl. all subsections), Improper integrals
11		Chapter 7.7-7.8 Chapter 7.9	Improper integrals, Area between two curves, Volume of solids of revolution
12		Chapter 7.9	Volume of solids of revolution

EVALUATION (Sept. 2022)

Your final grade will be calculated as:

Tutorial attendance: expected but not graded.

2 online tests of 120 minutes at a time TBA by your individual instructors: 15%+15%=30%

Tests will be open for 24 hours and you'll choose the 2 hour period within this time frame for when you write them.

2 assignments $2 \times 15 = 30\%$

Final exam: 40%

Missed tests and assignments will be dealt with at a unique predetermined time before the end of term (see accommodations below). Ask your instructor for more details.

Accommodations: In place of a doctor's note or medical certificate, students will be advised to complete the [self-declaration form](#) available on the Registrar's Office website to request academic accommodation for missed course work including exams and assignments. Students will also be encouraged to connect directly with their instructors to discuss required accommodations arising from the COVID-19 situation.

Miscellaneous

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.

Students with disabilities requiring academic accommodations in this course are encouraged to contact the [Paul Menton Center for Students with Disabilities](#) (500 University Center: Call 613-520-6608 or email pmc@carleton.ca)