# Calculus for Engineering or Physics

# **Carleton University, Mathematics** 1004

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.

Updated December 2, 2020

**TEXTBOOK**: The ABC's of Calculus, Volume 1, by Angelo Mingarelli, Nolan Company, July 2019 edition will be available in the Carleton University Bookstore at

www.carleton.ca/bookstore 613-520-3832

thebookstore@carleton.ca

in either digital or softcover format. Please contact the bookstore for orders and pricing.

Solutions Manual for 2019/2020 edition of the above textbook Click here

**OFFICE HOURS: N/A** 

Twitter: @amingarelli

<u>Youtube</u> (myawesomemathprof channel- created by your classmates during the 2011-2012 academic year)

The Calendar Year, 2020-

2021: <a href="https://carleton.ca/registrar/registration/dates-and-deadlines/">https://carleton.ca/registrar/registration/dates-and-deadlines/</a>

Tell us what you think about our teaching at Rate My Professors.com

Calculators: This is the year of the great pandemic, so all classes will be online and pretty much anything is permitted.

INSTRUCTOR: Dr. Angelo Mingarelli, Herzberg Building # 4380,

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

Classes Fall 2020: N/A

Classes start: January 11, 2021

Tutorials, Fall 2020: N/A

FOR ALL MATH 1004 STUDENTS!!

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: <u>zitateaching@gmail.com</u>, <u>super.sam@hotmail.com</u> (Please contact them directly.)

#### **Detailed Class Outline**

In the following table 1 week represents 2 lectures, and NOT a

full week as usual.

| WEEK | <b>TESTS SECTIONS</b>  | TOPICS  |
|------|------------------------|---|
| 1    | Chapter 1              | Functions, Review of Chapter 1 in text, Trigonometry, Intro to Chapter 2                    |
| 2    | 2.1-2, 2.3-6,<br>3.1-3 | Limits and continuity,<br>Evaluating limits at infinity,<br>derivatives and the Chain rule. |
| 3    | 3.4-5, 3.7-3.8         | Implicit differentiation, Derivatives of trigonometric functions, Inverse functions,        |
| 4    | 3.9-10, 3.12           | Inverse trigonometric functions and their derivatives, L'Hospital's Rule                    |
| 5    | 4.1-4, 4.5-6           | Exponentials, logarithms and their derivatives  |
| 6    | 6.1-2-3-4              | Anti-derivatives, The indefinite integral, Definite integrals                               |
| 7    | 7.1, 7.2               | Area, Integration by  |

|    |                              |                  | substitution (change of variable)                |
|----|------------------------------|------------------|--|
| 8  | NONE                         | October 16 to 30 | Fall Break, no classes                           |
| 9  |                              | 7.3              | Integration by parts                             |
| 10 |                              | 7.4, 7.5.1       | Partial fractions,                               |
|    |                              |                  | Powers of sines and cosines,                     |
| 11 |                              | 7.6, 7.7         | Trigonometric substitutions, Improper integrals, |
| 12 |                              | 8.2              | Area between two curves                          |
| 13 |                              | 8.3              | Volumes of solids of revolution                  |
| 14 | Dec.11 (last day of classes) |                  | Review   |

## **EVALUATION**

### 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%

3 assignments  $3 \times 15 = 45\%$ 

Final: 25%

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

Students with disabilities requiring academic accommodations in this course are encouraged to contact the Paul Menton Center for Students with Disabilities (500 University Center) to complete the necessary forms. After registering with the Center, make an appointment to meet with me in order to discuss your needs at least two weeks before the first in-class test. This will allow for sufficient time to process your request. Please note the following deadlines for submitting completed forms to the PMC for formally scheduled exam accommodations: TBA for fall and fall/winter term courses, and TBA for winter term courses."

TUTORIAL CENTRE: N/A