

Math 1280

Engineering Calculus I

Winter 2024

Course Description

An introduction to the study of calculus. More advanced topics include Riemann sums, techniques of integration, elementary differential equations and applications.

Course Information

- Class times: M-W-F - 1:35pm - 2:25pm
- Class location: Dunn 135
- Class starts 8 January, ends 9 April.
- Instructor: Alan Coley
- E-Mail: alan.coley@dal.ca
- Office: Chase Building Room 308
- Office hours: Wednesdays at 2:30pm in office

Tutorial Information

- Tutorial Times: M-W-F 12:35pm-1:25pm
- Teaching Assistant: Nicholas Layden
- Email: nicholas.layden@dal.ca
- Location: Dunn 135 (same as lecture)

Course Content and Textbooks

- Assignments: There will be approximately one assignment each week, due on the following Monday, during class. Starting from the first day of class (first assignment given).

- Tests: There will be 5 tests spaced out throughout the term, on **Wednesdays** during the **tutorial time**. See below for these dates.
- Textbook: Can be found through the library bookstore, or purchased online via brightspace links (to be added).

Learning Center

The **MATH/STAT Learning Centre** is located in Chase 119 and will be operating in-person and remotely. It opens on Jan. 8 and support is available Monday through Friday from 11:30am - 4:30pm and Monday through Friday evenings from 6:30-7:30pm, until Apr. 23. Register for the Brightspace “course” at <https://www.dal.ca/faculty/science/math-stats/about/learning-centre.html> to access the online support and see the latest schedule.

Evaluation

- Assignments - 10%
- Tests - 90% total – 5 tests spaced throughout the term

Course Outline

The course will cover the following topics:

- Review of polynomial, logarithmic, and trigonometric functions
- Limits and Continuity
- Differentiation: first principles
- Product, quotient and chain rules
- Related rates
- Curve sketching
- Optimization
- Anti derivatives
- Area under a curve: Riemann sums
- Definite integrals
- Integration by substitution

Test Structure

Each test will be approximately 50 minutes in length, during the tutorial period on Wednesdays.

Test dates

The four tests comprising 90% of your grade will cover the following topics:

- Test 1 — January 31 (Wednesday)
- Test 2 — February 14 (Wednesday)
- Test 3 — February 28 (Wednesday)
- Test 4 — March 13 (Wednesday)
- Test 5 — March 27 (Wednesday)
- Test 6 For students with valid doctor's notes – April 3 (Wednesday).

Late Policies

Late submissions for assignments will not be accepted, unless you have been granted permission by the instructor **before** the due date of the assignment. Email me to ask if you feel you need more time on an assignment.

Important Dates to Note

- January 8 – Classes begin
- February 2 – Monroe Day – No classes
- February 19 – Heritage Day – School closed
- February 19 - 23 – Study break
- March 29 – Good Friday – School closed
- April 8 – Friday classes held
- April 9 – Friday classes held
- April 11 – Exam period begins

For holidays and other important dates regarding classes and general school things, see the following link on the main Dalhousie webpage: https://www.dal.ca/academics/important_dates.html

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