

Course Outline

MATH 1172, Calculus II

Instructor: Maria Grazia Viola

Office: OA 3027

E-mail: mviola@lakeheadu.ca

Office Hours: Monday 12:00-2:00, Tuesday 2:00-3:30, Wednesday 12:00-2:00 or by appointment.

Lectures and Lab: Lectures on Monday and Wednesday 2:30-4:00 in OA 1025,

Lab: The Lab will be on Thursday 4:30-5:30. It will be run by Dr. Mihai Alboiu. His email address is malboiu@lakeheadu.ca

Text: Calculus, one and several variables, Tenth edition, by Salas, Hille, Etgen, \$ 175.95.

Course Outline:

- **Some applications of the integral (Chapter 6):** area, volume, work.
- **The transcendental functions (Chapter 7):** one-to-one functions, inverse functions, logarithms, exponentials, inverse trigonometric functions.
- **Technique of integrations (Chapter 8):** integration by parts, integration of trigonometric functions, trigonometric substitutions, partial fractions.
- **Sequences, Indeterminate forms (Chapter 11):** sequences, limit of sequences, indeterminate forms, improper integrals.
- **Infinite series (Chapter 12):** infinite series, divergence test, the integral test, the limit comparison test, the root test, the ratio test, absolute and conditional convergence, alternating series, Taylor polynomial and Taylor series, power series.

Grading System: The final grade will be determined by two midterms, the homework and the final. The weight of each component is as it follows:

Homework Grade 15%

Midterm I 20%

Midterm II 25%

Final 40%

Exam Schedule: The first midterm will be on February 4, 2026, while the second midterm will be on March 16, 2026.

Homework: I will give a list of homework problems to work as a practice. A homework assignment will be due every week on Monday. . IF YOU WORK ALL THE ASSIGNED HOMEWORK PROBLEMS, YOU SHOULD DO WELL IN THE COURSE. WITHOUT PRACTING THE MATERIAL COVERED IN CLASS IT WILL BE VERY UNLIKELY THAT YOU WILL RECEIVE A GOOD GRADE IN THE CLASS.

No late homework will be accepted except with a well documented valid university excuse. I will drop your lowest homework grade when determining your homework grade for the semester.

Make-up policy: A make-up midterm will be given only with well documented valid university excuses (sickness, etc). A make-up midterm must be written by the student within two weeks of the date of the original midterm.

This is a general outline. Any communication or change regarding this outline, the time of exams as well as other matters concerning the course will be announced in the lecture.