

Brief Course Outline

Course Title: **Introductory Calculus**

Course Number and Section

MATH

0110A 550

Instructor Name(s): Mohsen Mollahajiaghaei

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Disclaimer: Information in the brief course outline is subject to change. The syllabus posted on OWL Brightspace is the official and authoritative source of information for the course.

Course Description:

Limits, continuity, definition of derivative, rules for differentiation, higher-order derivatives, velocity, acceleration, implicit differentiation, related rates, exponential functions, logarithmic functions, differentiation of exponential and logarithmic functions, maxima and minima, concavity, curve sketching, optimization.

Learning Outcomes: one outcome per entry

Be able to manipulate functions to accomplish required goals.

Explore limits of functions

Understand instantaneous rates of change and how they compare with slope and average rates of change.

Be able to calculate and interpret derivatives of single-variable functions

Learn how to use exponential and log functions.

Solve application problems in a variety of areas.

Use derivatives to infer information about the graphs of functions.

Perform optimization with constraints.

Learn how to properly justify steps in mathematical calculations.

Textbooks and Course Materials:

Custom Text for Mathematics 0110A/B, 1225A/B and 1230A/B

OPTION 1: print text with homework solutions book (any edition, used or new)

OPTION 2: e-Book with homework solutions e-book (any edition)

Methods of Evaluation: one assignment per entry

Assignment	Due Date mm/dd/yy	Weight - %
Test 1		20
Test 2		20
Quizzes (weekly)		20
Final exam		40

Saturday, August 15, 2026

Huron Brief Course Outline 2026/27

In-course Costs \$070.00

For Textbooks and Course Materials (below), you are required to include the cost of each textbook or other learning material.

Note whether there are any restrictions that would prevent a student from using a second-hand copy. Here is some suggested text:

- Required textbook: [author, title, edition, publisher, date]. Cost: [insert amount].
 - Or include the weblink of the textbook’s publisher site that includes the cost information.
- Students need to purchase this edition. Second-hand or older editions will not be sufficient.
- OR Students are welcome to purchase second-hand or earlier editions of this textbook.
- This course has an optional field trip that costs [insert amount].
- This course has a required field component that costs [insert amount].

In solidarity with the Anishinaabe, Haudenosaunee, Lūnaapéewak, and Chonnonton peoples on whose traditional treaty and unceded territories this course is shared.