

Huron Brief Course Outlines

Fall/Winter 2023-2024

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 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:

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:

Assignment	Due Date mm/dd/yy	Weight - %
Test 1	10/16/2023	20

Assignment	Due Date mm/dd/yy	Weight - %
Final exam	Dec. TBD	40
Quizzes (weekly)	Ongoing	20
Test 2	11/13/2023	20

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