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

Methods Of Evaluation:

Assignment	Due Date mm/dd/yy	Weight - %
Quiz 1		4
Quiz 2		4

Assignment	Due Date mm/dd/yy	Weight - %
Quiz 3		4
Quiz 4		4
Quiz 5		4
Midterm		35
Final exam		45

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

Friday, April 12, 2024