Math 100 - Differential Calculus

Winter 2020 - Section V02 (Vantage College)

Instructor: Thomas Hughes
Email: hughes@math.ubc.ca
Time: MW 16:30 - 18:00
Place: MATH 204

Course website: http://www.math.ubc.ca/~hughes/math100.html
Canvas: https://canvas.ubc.ca/courses/47209

Office Hours. Monday 2:30 - 4:00 pm and Wednesday 11:00 am - 12:00 pm in LSK 300.

Course content. Math 100 is a first course in differential calculus. The topics covered include limits, sequences and series, functions of one real variable, continuity, differentiation and tangent lines, derivatives and their applications, the mean value theorem, and maxima and minima of functions. Summaries of the content covered will be posted to the course website each week.

Another aim of the course is to develop mathematical literacy in English. In addition to understanding the course material, a desired outcome is that you can express mathematical ideas and arguments efficiently in written and spoken English.

Textbook. We will use the CLP textbook, available for download here: http://www.math.ubc.ca/~CLP/.
The majority of the material is covered in the CLP-1 book on differential calculus, but the material on sequences and series is in the CLP-2 book. I encourage you to download and familiarize yourself with the books, as they are a great resource in addition to the course notes and they contain many practice problems which will be useful for exam preparation. To help you follow along in the textbook, I will post the textbook sections associated to the course material that we cover.

Evaluation. Grades will be computed as follows:

WebWork assignments - 10%
Quizzes - 15%
In-class participation - 5%
Midterm - 20%
Final exam - 50%

Homework. Homework will be assigned via WebWork, which you can access through the Canvas page. There will be weekly WebWork assignments covering the most recent course material which we have discussed. The WebWork assignments will be due each Thursday at 9:00 am.

Quizzes. Quizzes will take place in class roughly every two weeks. They will be short (15-20 minutes).

Participation. The participation grade is based on two components. One is attendance of lectures. For the other, sometimes during lecture I will give you time to work through a problem and afterwards I will ask one or two of you to solve the problem at the board. To get full participation grades, you are required to solve problems at the board a minimum of two times during the term.
Midterm. There is one midterm exam which will take place in class in the 7th or 8th week of term (late February / early March). The test will be 80 minutes long.

Final exam. There is a final exam worth 50% of your grade. This covers all the material of the course and will take place in April.

Missed tests and quizzes. If you are unable to write a quiz or the midterm and have a legitimate reason, please let me know beforehand. There will be no make up tests, so I will adjust the weighting of your other evaluations. If you cannot attend because of a medical reason or another emergency, contact me when you are able and provide some proof, for example a doctor’s note. Undocumented absences for quizzes and the midterm will result in a grade of zero.