Welcome to
MATH 3231 - Introductory Analysis I
Fall Term 2020

INSTRUCTOR: Dr. M. Ilie

- **Contact info**: RB 2019 ⋆ *milie@lakeheadu.ca*

- **Office hours via Zoom**: Tu, Th 10:00-11:00 or by appointment

COURSE INFORMATION:

- **Class time**: M/W 11:30-12:45 (synchronous Zoom meeting)

- **Textbook**: *Introduction to real analysis* by Robert Bartle, Donald Sherbert.

- **Additional resources**

    - *Introduction to analysis*, by Maxwell Rosenlicht

- **Grading:** Your grade will de determined by one midterm, a cumulative final exam and a homework grade. The weight of each of these are as follows:

Homework	Project	Midterm	Final Exam
20%	20%	25%	35%
		Oct 28 (W)	TBA

- **Course webpage:**

  https://mycourselink.lakeheadu.ca

- **Midterm**: Wednesday, October 28 (online via D2L)

- **Bonus points** Bonus points will be awarded for participation to poll questions and in class work. These will also made available, via links on the course website, for 12h after the lecture, for the students that cannot attend the synchronous class due to time zone differences. Each activity will earn you one point. The maximum number of points will add a 2% bonus to your final mark.

GOALS

The goal of this course is to build a reasonable foundation for advanced work in various branches of analysis. Moreover, there will be an emphasis on understanding and writing mathematical proofs. In particular, you will see and be encouraged to prove (in full detail) statements which previously you have been persuaded to accept because of their immediate obviousness. By the end of the term you will have a deep understanding the properties of the real numbers, order completeness of reals, metric space topology, numerical sequences and series.

SYLLABUS

In this introductory course in real analysis we will cover Chapter 1, 2, 3, and from Chapter 11 sections 1, 2, 4.

ASSIGNMENTS POLICIES

Assignments are intended for your own **individual work**, they are not supposed to be worked in groups. It is required that you acknowledge any web resources or books (other than the recommended ones) that you may have used for your homework. Failure to do so constitutes **plagiarism**. Late assignments will **not be accepted**. Assignments will need to be scanned and uploaded on D2L under the Assignments section.

PROJECT

Each student will be assigned a mathematician that has contributed over the years to the field of analysis and will be asked to make a 15 minutes presentation on the the life and mathematical accomplishments of their assigned mathematician. We'll have one student present each week, starting on the third week, on the Wednesday lecture. The list will be provided shortly.

ACCOMODATIONS

Lakehead University is committed to achieving full accessibility for persons with disabilities. Part of this commitment includes arranging academic accommodations for students with disabilities to ensure they have an equitable opportunity to participate in all of their academic activities. If you think you may need accommodations, you are strongly encouraged to contact Student Accessibility Services (SAS) and register as early as possible. For more information, please visit: http://studentaccessibility.lakeheadu.ca

IMPORTANT DATES:

- **September 21, 2020:** last day for registration

- **November 6, 2020:** last date for course withdrawal without academic penalty

- **December 21, 2020:** contingency date (all exams that are missed by the closure of the university during the exam period, due to unforseen circumstances, will be rescheduled this day)