

**THE CHINESE UNIVERSITY OF HONG KONG**

**Department of Mathematics**

**MATH2050C(Spring Term, 2023-24)**

**Mathematical Analysis I**

LECT M23, WMY305, AND W2, WMY301; TUT W3, WMY301

Course Web Page : <http://www.math.cuhk.edu.hk/course/math2050c/>

## **Introduction**

MATH2050, 2060 and 3060 are basic courses for analysis. Together they form a solid foundation for analysis. In this first one we start with the real number system, then proceed to limits of sequences and functions, and end up with the concept of continuity and uniform continuity. We will follow the text closely by going through chapters 2-5 assuming chapter 1.

Assignments will be posted on the course web page every week. Although you are asked to hand in a few selected problems only, you are supposed to do all. There are also some in-class assignments in the tutorials.

## **Instructor**

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## **Teaching Assistants**

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## Text Book

- *Introduction to Real Analysis*, 4<sup>th</sup> Edition, by R.G. Bartle and D.R. Sherbert, John-Wiley and Sons, NY, 2011.

## References

- *Principles of Mathematical Analysis*, 3<sup>rd</sup> Edition, by W. Rudin, McGraw-Hill, International Editions, 1976. A step beyond MATH2050/60, this compactly written book has bred generations of mathematicians. Highly rewarding if read carefully.

## Grade

- 15% Assignments
- 40% Midterm Examination
- 45% Final Examination (centralized by the University)

## Assignment Policy

Problem sets will be assigned and deadline for submission will be posted. You must attend the tutorial classes where you work out and hand in additional exercises given by the tutors in class.

## Honesty in Academic Work

The Chinese University of Hong Kong places very high importance on honesty in academic work submitted by students, and adopts a policy of zero tolerance on cheating and plagiarism. Any related offence will lead to disciplinary action including termination of studies at the University.

Although cases of cheating or plagiarism are rare at the University, everyone should make himself/herself familiar with the content of the following website:

<http://www.cuhk.edu.hk/policy/academichonesty/>

and thereby help avoid any practice that would not be acceptable.