

**THE CHINESE UNIVERSITY OF HONG KONG**

**Department of Mathematics**  
**MATH2060A**(Spring Term, 2019)  
**Mathematical Analysis II**

Course Web Page : <http://www.math.cuhk.edu.hk/course/math2060a/>

## **Introduction**

This is a sequel to MATH2050. In MATH2050 we learnt limits of sequences, series and functions as well as continuity and uniform continuity of functions. In this course we will apply all these acquired knowledge to the study of differentiation of functions, Riemann integrals, elementary functions and infinite series of functions. We will follow the text book by Bartle-Sherbert in which Chapters 6 to 9 will be covered. There are also some supplementary notes. For those who want to learn more might look up the reference books listed below or pick you favorite ones elsewhere. Luckily or unluckily, examinations will not depend on them. You will be ready for MATH3060 after this course.

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

## **Instructor**

- Prof Kai-Seng Chou (W2, F2,3, LT4, LSB)
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## **Teaching Assistants**

- Mr Ma Caiyun (grader)
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  - Office hours: Tue 6:30pm-8:30pm, Wed 6:30pm-8:30pm, Fri 8:30am-12nn.
- Mr Ng Hoi Dong (tutor W1 C2, W3 C3, LSB)
  - Office: Rm 222A, LSB
  - Phone: 3943 3575
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  - Office hours: Tue 10am-12nn, Wed 10:30am-12nn and 1:30pm-4pm, Thu 10am-12nn.

## 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.
- *Advanced Calculus: A Course in Mathematical Analysis*, 2<sup>nd</sup> edition, by P. Fitzpatrick, PWS Publishing Co. 1996. Similar to Fleming's book in nature. It covers less materials than the former, but is relatively recent and easier to read.

## Grade

- 5% Assignments (in- and off-class)
- 10% Four Quizzes
- 35% Midterm Examination
- 50% 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.