THE CHINESE UNIVERSITY OF HONG KONG
Department of Mathematics
MATH2055 (First term, 2016-17)
Introduction to Analysis

Instructor

- Fong Wing-Chung (Office: Rm 218 LSB. Email: `wcfong@math.cuhk.edu.hk`)

Tutors

- Suen Yat-Hin (Office: Rm 232 LSB. Email: `yhsuen@math.cuhk.edu.hk`)
- Cheung Siu-Wun (Office: Rm G06 LSB. Email: `swcheung@math.cuhk.edu.hk`)

Time and Venue

- Lectures and tutorials: Tuesdays 1630-1815hrs LSB C1, Fridays 1430-1615hrs LSB C2.

Assessment Scheme

- **Coursework**: 60%

  Assignments: The main purpose of the assignments is to enhance learning for most students:

  - Your work will be marked according to what you are expected to achieve in the written test and the examination. You will be given two scores for each answer, the 'effort marks' and the 'standard marks'.
  - You will be awarded most of the 'effort marks' in each assignment, out of a full score of 10, if you are deemed to have put in a reasonable effort to attempt the questions.

    Your total assignment score will be the sum of your 'effort marks'.
  - Together with the comments on your work, the 'standard marks' will give you an idea on how the written test and the examination will be graded.

    The 'standard marks' will not count in the assessment.

  Written Test: There is one written test. The tentative date is 4/11 (in Week 9).

  Oral Test: There is one oral test ('*viva voce*'). The tentative date is Tuesday 6/12 (in Week 14).

  Your coursework score C will be given by the formula

$$C = \min\left\{\frac{3A}{20}, 10\right\} + \left[\frac{A}{20} + \frac{W}{100}\left(30 - \frac{A}{20}\right)\right] + V.$$

  Here A is your total assignment score. W is your written test score out of the full score of 100. V is your oral test score out of the full score of 20.

- **Final Examination**: 40 %

Course Material and Course Announcements

Course material (for example, supplementary notes, assignments, tutorial sheets) will be uploaded to the course homepage at

`http://www.math.cuhk.edu.hk/course_builder/1617/math2055/2055hp-mat.html`

Course announcements made in class may be put onto the course homepage and communicated via the CWEM.

References

1. M. Spivak, *Calculus* (Third Edition), Cambridge University Press.
2. L. Alcock, *How to Think about Analysis*, Oxford University Press.
3. R. G. Bartle, D. R. Sherbert, *Introduction to Real Analysis* (Fourth Edition), Wiley.
4. Fitzpatrick, *Advanced Calculus* (Second Edition), American Mathematical Society.
5. W. Rudin, *Principles of Mathematical Analysis* (Third Edition), McGrawhill.

Teaching Schedule

The schedule is provisional. We will adapt it along the way to suit the mathematical capability of the students.

- Weeks 1-6: limits and continuity.
- Weeks 7-10: differentiation and integration.
- Weeks 11-13: power series.