

Course Outline

Probability and Stochastic Analysis (MMAT5340)

2018/2019, First Term: 3 September 2018 (Mon) 3 December 2018 (Tue)

No Teaching Days:

Sept. 25 (Tue, Day after Mid-Autumn), Oct. 1 (Mon, National Day).

Course Homepage:

<https://www.math.cuhk.edu.hk/course/1819/mmat5340>

Lectures:

Mo 6:30PM - 9:15PM, Wu Ho Man Yuen Bldg 507.

Teacher: Professor Tiejong Zeng

Tutors: Lo Chiu Hong (LSB Rm 232B; 3943 7978; chlo@math.cuhk.edu.hk)

Course Description:

This course is designed for the M.Sc. Programme in Mathematics. This course focusses on the rigorous foundation in probability and Markov chains theory with applications in different areas. No prior knowledge of measure theory is assumed.

Course prerequisite:

Most fundamental: advanced calculus and linear algebra.

Grade policies:

Homework:

10%;

Mid-Exam: **25%**; Final Exam: **65%**.

Mid-exam date:

Attention: Venue may be different from the currently used classroom.

Textbooks: mainly based on

1. **Peter Olofsson, Mikael Andersson**, *Probability, Statistics, and Stochastic Processes*, Wiley, 2012, 2nd Edition.
2. **Saeed Ghahramani**, *Fundamentals of Probability, with Stochastic Processes*, CRC Press, 2015, 3rd Edition.

References:

1. **Roy D. Yates, David J. Goodman**, *Probability and Stochastic Processes: A Friendly Introduction for Electrical and Computer Engineers*, Wiley, 2004, 2nd Edition.

Academic Honesty:

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