

Department of Computer Science,
National Yang Ming Chiao Tung University

CSCS10007 Probability Theory

- **Time of offering:** Fall Term, 2025
- **Level:** Mandatory for all the CS undergraduates
- **Course Instructor**
 - Wen-Hsiao Peng (彭文孝), Ph.D
 - E-mail: wpeng@cs.nycu.edu.tw
 - Office: EC431 (工三館 431)
 - Phone: Ext56625
 - LAB: <https://mapl.cs.nycu.edu.tw/content/index.html>
- **Teaching Assistants**
 - 周子翔 sean1352468@gmail.com
 - 楊賀弼 mrrrimge32.cs13@nycu.edu.tw
 - Room: EC 621/714 (工三館)
- **Lecture**
 - The course meets on Wednesdays from 10:10am to 12:00pm (W34) and Fridays from 15:30pm to 16:20pm (F7), in **EC115**.
- **Course Outline**
 1. Sample Space and Probability
 2. Discrete Random Variables
 3. General Random Variables
 4. Further Topics on Random Variables
 5. Limit Theorems
 6. The Bernoulli and Poisson Processes
 7. Markov Chains
- **Text Books**
 - Dimitri P. Bertsekas and John N. Tsitsiklis, *Introduction to Probability*, 2nd

ed., Athena Scientific, 2008.

- Lecture Notes
<https://ocw.mit.edu/courses/res-6-012-introduction-to-probability-spring-2018/>

- **Reference**

- K. L. Chung and F. AitSahlia, *Elementary Probability Theory with Stochastic Processes and an Introduction to Mathematical Finance*, 4th ed., Springer-Verlag, 2003. (**Highly Recommended**)
- W. Feller, *An Introduction to Probability Theory and Its Applications*, 3rd ed., Wiley, 1950. (**Bible Text**)

- **Grading Policy**

- 2 Mid-term Exams (25% each)
- Final Exam 30%
- Homework 15%
- Class-time Quizzes and Attendance 5%

- **Office Hours**

- Wednesdays and Fridays after classes in EC431.
- Other time slots are also possible by appointments beforehand.