# Probability (機率)

Syllabus

Instructor: Jung-Chun Kao (高榮駿)

Textbook and reference

- **Textbook**
  - Saeed Ghahramani, Fundamentals of Probability with Stochastic Processes
    - 4th Edition
      - "Review problems" are available on eeclass in case yours is a newer/older version
- **Reference book**
  - Dimitri P. Bertsekas and John N. Tsitsiklis, Introduction to Probability
    - 2nd Edition
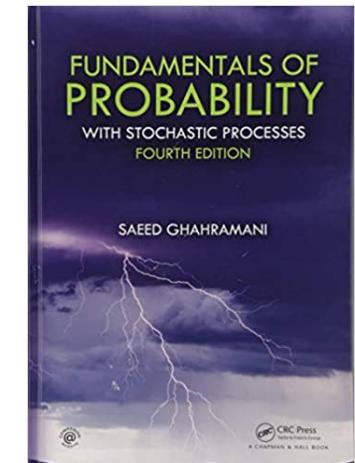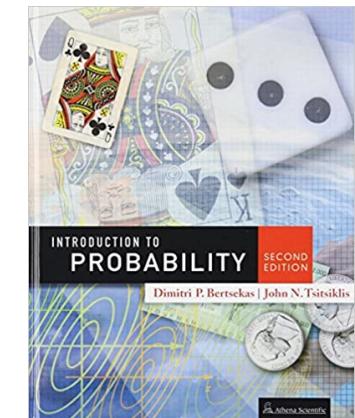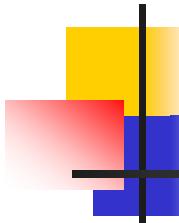
Course outline

- We plan to cover the following:
  - Axioms of probability (ch 1, excluding 1.5 & 1.8)
  - Combinatorial methods (ch 2, reading assignment)
  - Conditional probability and independence (ch 3)
  - Discrete random variables (ch 4&5)
  - Continuous random variables (ch 6&7, excluding 7.4, 7.4-7.6)
  - Bivariate/multivariate distributions (ch 8 & 9.1)
  - More expectations and variances. (ch 10, excluding 10.2 & 10.3 & 10.5)
  - Sums of independent random variables and limit theorems (ch 11, excluding 11.3)
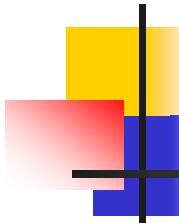
Logistics

- Class time:
  - Wednesdays 10:10am - noon, 台達109
  - Fridays 10:10am - noon, 台達109
  - 本課程上150分鐘，其餘時間由教授視情況彈性運用
- Course webpage:
  - eeclass: https://eeclass.nthu.edu.tw
  - My personal homepage (only for syllabus): http://www.cs.nthu.edu.tw/~jungchuk
- Instructor: Jung-Chun Kao (高榮駿)
  - Email: jungchuk@cs.nthu.edu.tw
  - Office hour: Wednesdays 4:30 – 5:30pm
- TAs: See the eeclass webpage for their info
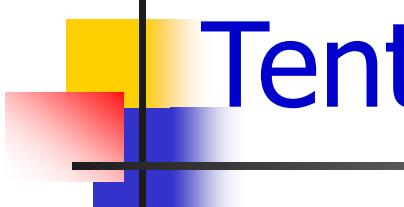
Tentative evaluation

- Assignments (10%)
  - No late homework is accepted
- Midterm and final exams (40% each)
  - Midterm exam on April 22 (Friday)
  - Final exam on June 12 (Friday)
  - No make-up!
- Participation (10%)
  - No roll call; don't ask for leave