

Probability and Statistics (2022 Spring)

Introduction

Division of Computer Convergence
Seungbum Jo

Basic Information

- Instructor : Seungbum Jo (Office : 공5524 , E-mail : sbjo@cnu.ac.kr)

Lecture format: Online lecture (via Zoom, for March+) + Offline lecture (Otherwise)

Time and Place (for offline / online)

- Class 00 (for Division of AI, in Korean): 공5405, Tue 13:00 – 16:00
- Class 03 (for CSE, in English): 공5405, Wed 10:00 – 13:00
- For online lectures, Zoom link will be provided via e-learning before the class. You should connect zoom via that link (otherwise, attendance may not be counted)
- Please set Zoom user name as '**number_name**' (ex: 202101111_김확통)

Basic Information

- Course Homepage (e-learning) :

<https://e-learn.cnu.ac.kr/> → 확률및통계 (check your class number)

- * Please check announcement (공지사항) board at least once per day.
- * Without private questions, **please use 'Q&A' board to ask questions.**

(I will not answer any of those questions via E-mail)

- * Don't hesitate to visit my office, but please send me an e-mail before visiting

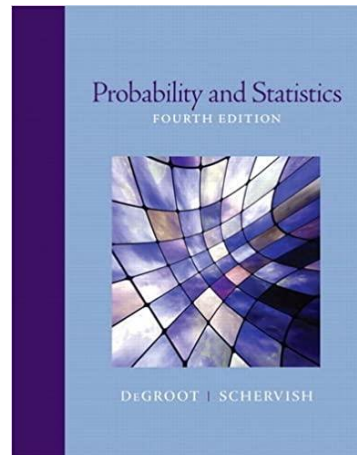
Pre-requisite

- **High school (for math&science) mathematics:** please do self study if you don't remember
- **Mathematics 1 (Calculus)**
- Mathematics 2 (multi-variable Calculus): highly recommended, but not mandatory
- Linear Algebra (rarely used)

Teaching material

Probability and Statistics (4th edition) by Morris H. DeGroot and Mark J. Schervish

– You can easily download full pdf of the textbook via Google search.



- This textbook has no translated version. You should be familiar with terminology in English.
- Lecture notes will be provided after the class (**I will not use slides for lectures except this one**).

Course Description

Probability + Statistics

- Generalization & Extension of high-school probability and statistics.
- Probability part: Understanding the concept of **Random variable** is the main propose.
- Statistics part: Cover various concepts of statistics (p-value, confidence level) which are useful for analyzing data.

Lecture Topics

Cover Chap 1 – 9 in the textbook (not everything!)

- Introduction to Probability
- Conditional Probability
- Random Variables and Distributions
- Expectation
- Special Distributions

-----Midterm-----

- Large Random Samples
- Estimation
- Sampling Distributions of Estimators
- Testing Hypotheses

-----Final-----

Grading

1. Midterm : 35%
2. Final : 45%
 - Class 00 and 03 may take midterm and final at the same place, same time (will be announced later)
 - You will get an "F" grade if **miss a midterm or final**
3. In-class Quizzes (once per two weeks) : 20%
 - 2 ~ 3 problems, 20 mins.
 - During online lectures, quizzes will be taken using e-learning (details will be announced later)
4. Attendance
 - ≤ 7 absence : no affect to the final grade
 - > 7 absence : automatically get an F