Probabilities and Statistics

- CP26023 (Section 061) – Fall 2019 2016학년도 제 2학기
- Time – TR 13:30-14:45 PM
- Location – 201-6515
- Credits – 3.00
- Instructor – Giltae Song, Ph.D.
  - Office: Room 308 in Building 313
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  - Email: gsong@pusan.ac.kr
- Teaching Assistant
  - Rian Pratama
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Requirements and Grading

- Prerequisite – Calculus (1st week: review session)
- Textbook – Introduction to Probability Models, 11th edition written by Sheldon Ross
- Grading
  - Attendance 10%
  - Mid-term 25%
  - Final 25%
  - Homework 20% (twice)
  - Quiz 20% (twice)

Evaluation

- Evaluation
  - A+: up to 15% of students
  - >= A0: up to 30%
  - >= B0: up to 80%
  - Zero points plus 10 additional points deducted for any cheating action
  - F if more than 1/3 of classes are missed

Course overview

- Cover the basics of probability theory and many essential concepts in probability
- Learn applications of probability on data analysis

Course overview

- Week 1: Course overview and Algebra review
- Week 2: Calculus review and Discrete random variables
- Week 3: Continuous random variables
- Week 4: Expectation
- Week 5: Joint distribution
- Week 6: Conditional probability
- Week 7: Conditional expectation
- Week 8: Midterm (13:30 pm on Oct 29th Tuesday)
- Week 9: Computing variances and probabilities by conditioning
- Week 10: Markov Chains
- Week 11: Limiting Probabilities
- Week 12: Time reversible Markov chains and hidden Markov chains
- Week 13: Exponential distribution
- Week 14: Poisson process
- Week 15: Final exam (13:30 pm on Dec 19th Thursday)