Discrete Mathematics

CS204: Spring, 2008

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Computer Science Division, KAIST

- Course Objective
  - This course covers basic concepts in discrete mathematics and introduces how they are used to address real-world problems.
  - A particular attention will be paid to help the students to develop the ability to deal with abstraction to model real-world problems.
- Administrative Details
  - Instructor
    - Jong C. Park (park@cs.kaist.ac.kr, 869-3541)
    - Office Hours: TBA (CS Bldg. #2406)
  - Teaching Assistants
    - Seung-cheol Baek
    - Yoon-Jae Choi
    - Hee-Jin Lee (CS Bldg. #2409; Head)
    - Hye-Jin Min
    - Chong-Yeol Nah
    - Dong Hoon Shin
    - cs204@nlp.kaist.ac.kr
  - Lecture Hours
    - 1:00pm~2:20pm, Tuesdays and Thursdays
  - Lecture Room
    - CS Building #1101 (Lecture Room #1)
  - Homepage
    - http://nlp.kaist.ac.kr/~cs204
- Textbooks
  - Primary
    - Discrete Mathematics, Richard Johnsonbaugh, 6th edition, Prentice-Hall, 2005.

- Secondary
  - Discrete Mathematics and Its Applications, Kenneth H. Rosen, 5th edition, McGraw Hill, 2003.

- Evaluation
  - Attendance and Quizzes: 15%
  - Homework: 30%
  - Midterm Exam: 30%
  - Final Exam: 25%

- Topic Materials
  - Logic and Proofs
  - The Language of Mathematics
  - Relations
  - Algorithms
  - Introduction to Number Theory
  - Counting Methods and the Pigeonhole Principle
  - Recurrence Relations
  - Graph Theory
  - Trees
  - Network Models
  - Boolean Algebras and Combinatorial Circuits
  - Automata, Grammars, and Languages