# *Introduction to this Course*
## *(Mathematics for Computer Science)*

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# *Outline*

- **Course coverage**
  다루고자하는것
- **Motivation for this course**
- **Course information**
  - Contact information/Textbook/Online information
  - Weekly schedule
  - Grading Policy
  - Notice for mid-term exam
  - Notice for final exam

# *Course Coverage*

이산수학 : 이산구조를다룸

- It covers discrete mathematics dealing with discrete structures.

– **Discrete** (이산)
  - Composed of distinct, separable parts
  - Opposite of continuous
  - discrete:continuous :: digital:analog

↑ 수학적으로 연속적임

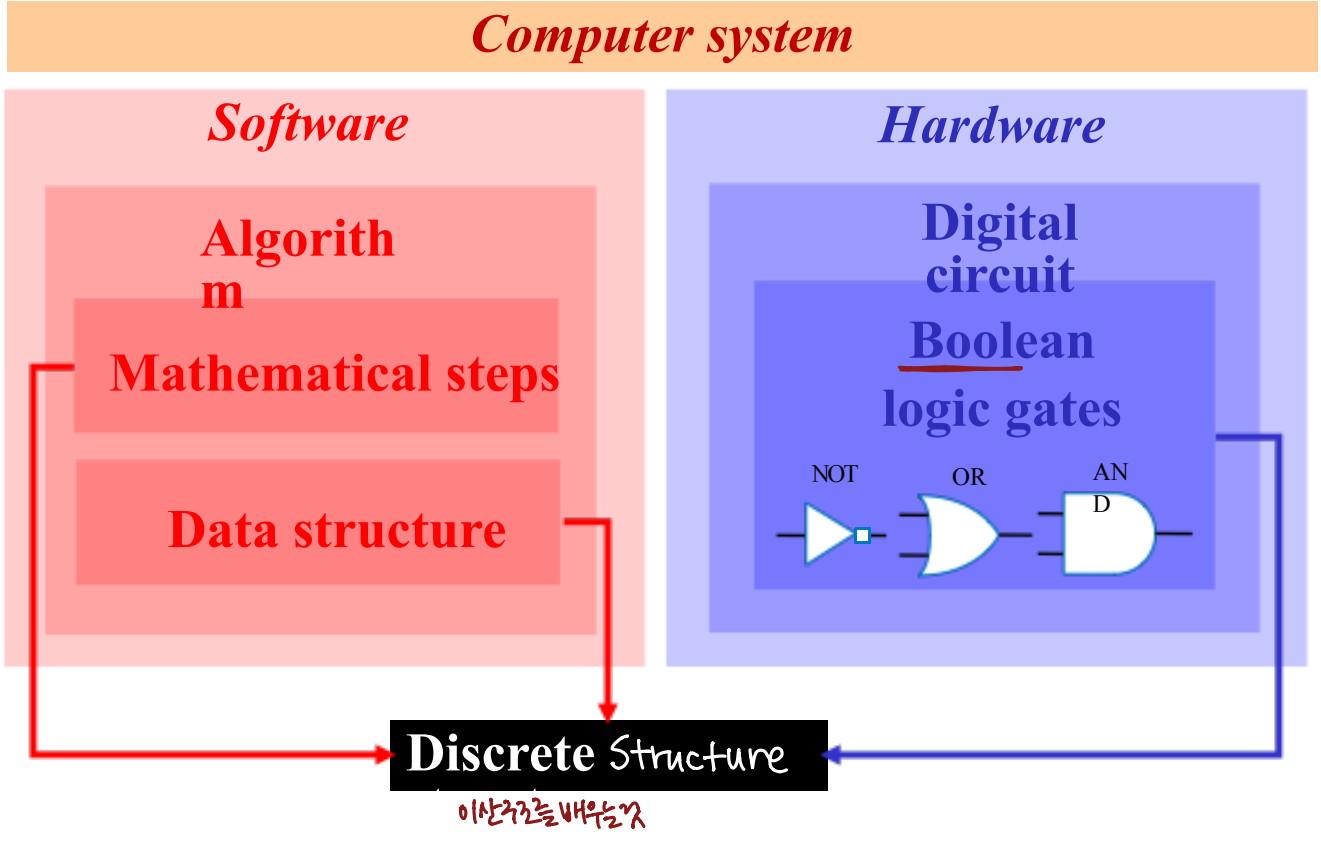
– **Structure**
  - Objects built up from simpler objects by mathematical manipulation

– **Discrete mathematics**
  - It covers how to build up discrete objects by mathematical manipulation.

교묘한 처리

# *Motivation for This Course*

- Why study discrete math for computer science?



# *Motivation for This Course*

# *Course Information*

- **Contact information**
  - Email: awgsize@gmail.com
  - Kakaotalk ID: awgsize
    - Add me on Kakaotalk and send your major/year/student ID/name with this course name (division) through 1:1 chatting on Kakaotalk.
      - **Example: XXX수업 (x분반) XXX전공 X학년 학번 1234567 이름 XXX 입니다.**

- **Textbook**
  - Lecture notes (PPT slides) by Prof. Yoonjin Kim

- **Online information**
  - SnowBoard (http://snowboard.sookmyung.ac.kr)
    - Lecture notes (PPT slides), notices

# *Course Information*

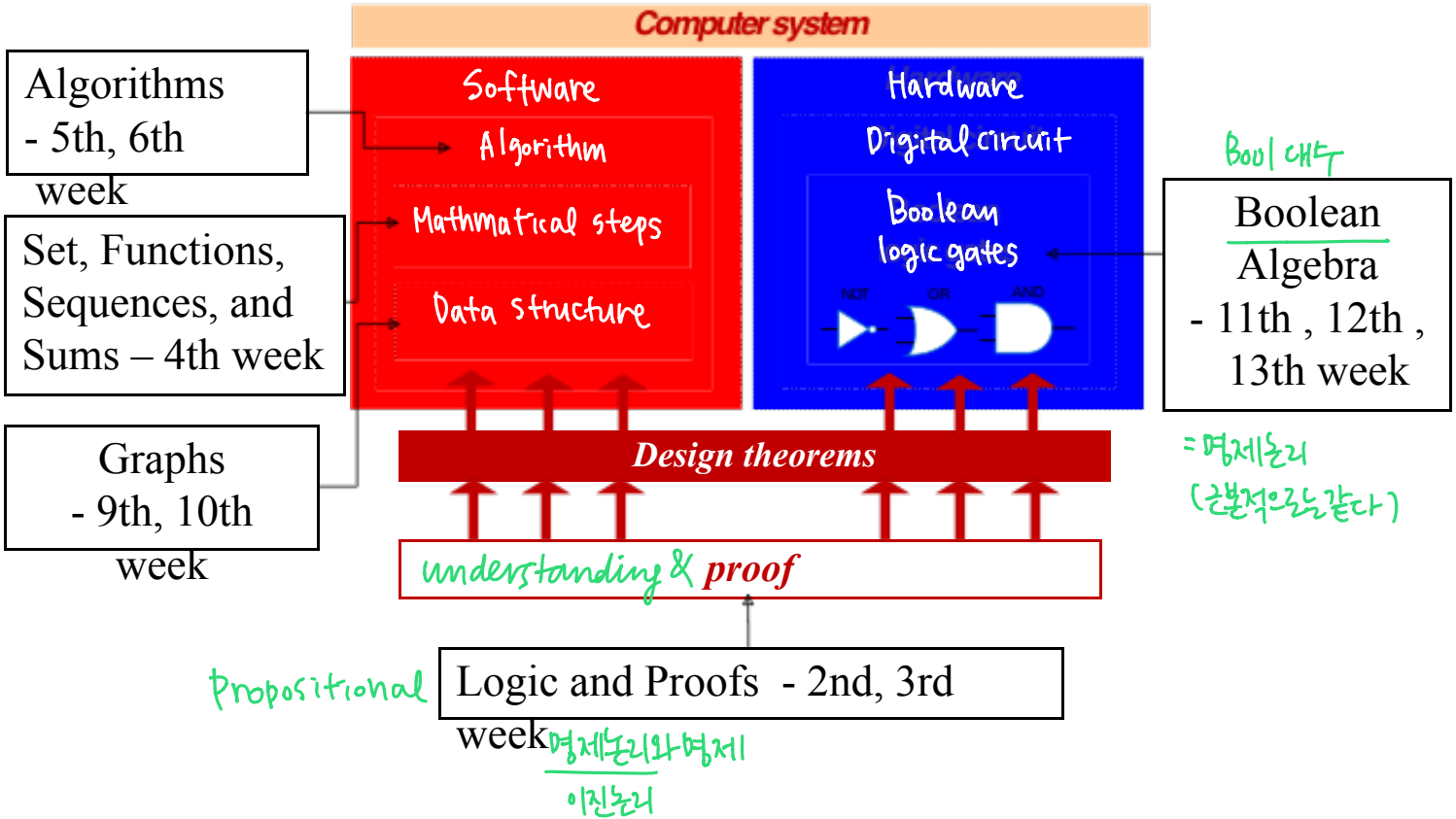
- **Weekly schedule**

| Week | Topics |
|---|---|
| 1 | **Introduction to this Course** |
| 2 | Logic and Proof#1 |
| 3 | Logic and Proof#2 |
| 4 | Set, Functions, Sequences, and Sums |
| 5 | Algorithm#1 |
| 6 | Algorithm#2 |
| 7 | **Midterm Exam Q&A** |
| 8 | **Midterm Exam** |

| Week | Topics |
|---|---|
| 9 | Graphs#1 |
| 10 | Graphs#2 |
| 11 | Boolean Algebra#1 |
| 12 | Boolean Algebra#2 |
| 13 | Boolean Algebra#3 |
| 14 | **Final Exam Q&A** |
| 15 | **Final Exam** |

# Course Information

- **Weekly schedule**



# *Course Information*

- **Grading policy**

– Midterm exam 50%

– Final exam 50 %

**I don’t care your attendance and it does not affect your grade.**

# *Course Information*

- **Notice for mid-term exam** 중간고사
  - **Open questions**
    - Question#1: Explain why you have to learn the topic every week (2nd week ~ 6th week). .
    - Question#2: Explain what's the most important thing in each topic and why it is the most important.
  - **How to make your answers for the open questions**
    - Make PPT file answering two questions.
    - Make 15 minutes video-clip including your presentation of the PPT file.
      - Use screen-recording program.
  - **How to submit the PPT file and video-clip**
    - Submit the PPT file to 'Midterm Exam' on Snowboard.
    - Let me know the URL of the video-clip by both kakaoTalk and comments on Snowboard. 구글드라이브나 유튜브 링크드해
      - Upload the video-clip on the open website such as google drive, YouTube.
    - Submission deadline: Shown in 'Midterm Exam' on Snowboard

# *Course Information*

- **Notice for mid-term exam**

– **Rating policy** (total 50% )

- Logicality of your answers: 30%
- Clarity of your presentation in video-clip: 10%
- Overall organization of PPT file: 10%

# *Course Information*

- **Notice for final exam**
  - **Software and hardware design assignment**
    - Software design: Graph algorithm
    - Hardware design: Digital circuit based on boolean algebra
    - More specific information will be announced.
  - **How to make your design contents**
    - Make PPT file for presenting your design – PPT format will be annouced.
    - Make 15 minutes video-clip including your presentation of the PPT file
      - Use screen-recording program.
  - **How to submit your design contents**
    - Submit the PPT file to ‘Final Exam’ on Snowboard.
    - Let me know the URL of the video-clip by both kakaoTalk and comments on Snowboard.
      - Upload the video-clip on the open website such as google drive, YouTube.
    - Submission deadline:Shown in ‘Final Exam' on Snowboard

# *Course Information*

- **Notice for final exam**

  – **Rating policy** (total 50% )

    - Design completeness: 30%
    - Clarity of your presentation in video-clip: 10%
    - Overall organization of PPT file: 10%