

Introduction to this Course

(Special Topics in Computer Architecture)

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Outline

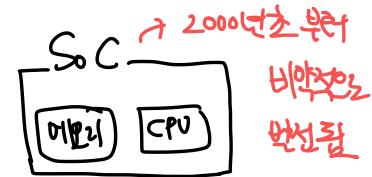
- **Course coverage** ⇒ 수업에서 다루고자하는 이야기
- **Course objective** ⇒ 수업의 목표점.
- **Course information**
 - Contact information/textbook/online information
 - Weekly schedule
 - Grading Policy
 - Notice for mid-term exam ⇒ 중간고사 형식
 - Notice for final exam ⇒ 기말고사 형식

Course Coverage

⇒ 수업에서 다루고자하는 이야기

- This course will cover theories and methodologies for understanding the modern computer systems with a focus on memory and CPU based on SoC (System-on-Chip).

↳ 컴퓨터 시스템을 “메모리”와 “CPU”에 맞춰서 배울 것임. (SoC)



- Major issues covered in this course include memory hierarchy, cache memory, micro-architecture of CPU.

핵심 키워드

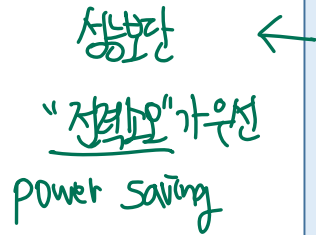
1) memory hierarchy 메모리 계층구조

2) cache memory 캐시 메모리

3) micro-architecture of CPU CPU의 미세구조
(트렁크, 버스, 인터럽트 등)

기기에 대한
토착적인 것 자체 목표.

- ↳ 어떻게 다닌다? 어떤 용도로? 왜?



performance/power을 ↑↑
↑↑정확도 (정확/전력)

- Memory hierarchy
- Cache memory
- Microarchitecture of CPU

관할 수 있는 세가지 가정.
⇒ 이외에도 타락함. but 이 세가지가 중요함.

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 through 1:1 chatting on Kakaotalk.

- ✓ For example: XXX수업 듣는 XXX전공 X학년 학번 1234567 이름 XXX 입니다.

- **Textbook**

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

두키방으로
공지할 예정입니다.

- **Online information**

- SnowBoard (<http://snowboard.sookmyung.ac.kr>)

- Lecture notes (PPT slides), notices

다들 물어볼 것인데
카톡방에

Course Information

• Weekly schedule

중간, 기말 마지막 준비하기

기반

Week	Topics
1	Introduction to this Course
2	Introduction to Memory#1
3	Introduction to Memory#2
4	Basis and Theory for Digital Circuits
5	Introduction to CPU
6	Physical Implementation 물리실 구현
7	Midterm Exam Q&A
8	Midterm Exam

Week	Topics
9	Introduction to Cache Cache memory
10	Cache Memory Evaluation of Commercial CPU Products
11	Advanced Topics for Micro-Architecture of CPU
12	Performance-Power Consumption Metrics for Evaluating Commercial CPUs
13	Announcement for Final Exam
14	Final Exam Q&A
15	Final Exam

Course Information

- **Grading policy**
 - Midterm exam 50%
 - Final exam 50 %

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

↳ 출석 X

Course Information

- Notice for mid-term exam <중간>

동형적인 봤을 때, 중요한 것을 봐야함.

- Open questions → 공개된 문제

→ 2~6주차 내용을 왜 배워야하는가!?

- ★ 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. → 각각 주제에 대해 가장 중요한 것은 무엇인가를 말하고 이를 설명하시오.

- How to make your answers for the open questions

- Make PPT file answering two questions.

→ 모든 것을 펴X. 요약과 설명만 좋음.

- Make 15 minutes video-clip including your presentation of the PPT file.

- ✓ Use screen-recording program. → 이 프로그램이면 좋음. (PPT 기능에 있음)

- How to submit the PPT file and video-clip

- Submit the PPT file to 'Midterm Exam' on Snowboard. → 스노보드에 PPT 제출

- 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. → open website에 업로드

- Submission deadline: Shown in 'Midterm Exam' on Snowboard

올리고 URL을 알려주기.

↳ deadline : 될 중 하마차로 자시간에 올리면 인정.

↳ 그 전에 올리기

Course Information

- Notice for mid-term exam

- Rating policy (total 50%)

- 논리성
 - 명확한 말투
 - 전반적 구성
 - 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

↳ 상업적 컴퓨터 시스템 평가

- Evaluation of commercial computer systems

- Select 4 cases of commercial computer systems that you want to evaluate.

- ✓ A ^{4가지 경우 선택} smartphone, a smartpad, a laptop and a desktop ⇒ 성능/전력 소 등 바뀔 기준으로 평가해보기 (12주차 내용참고)

- Evaluate the selected computer systems by the topics you learn in this course.

- How to make your evaluation contents

↳ PPT format 존재함 (11주쯤 줄 계획)

- Make PPT file for presenting your evaluation – PPT format will be announced.

- Make 15 minutes video-clip including your presentation of the PPT file

- ✓ Use screen-recording program.

⇒ 개발자 수준으로 평가해야함.

↳ 영합 수준이면 안됨.

- How to submit your evaluation contents

- Submit the PPT file to 'Final Exam' on Snowboard. → 스노우보드에 올리기 (PPT안)

- 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. ⇒ website에 올리기

- Submission deadline: Shown in 'Final Exam' on Snowboard

URL만 올리기

↳ 마감일 꼭 지키

Course Information

- Notice for final exam

- Rating policy (total 50%)

→ 4가지 case를 format 대로 깊이 있게 했는가 (4개 모두)

평가 완성도

- Evaluation completeness: 20%

이론적/기술적 평가 깊이

- Theoretical & technical depth of your evaluation: 10%

명확한 발표

- Clarity of your presentation in video-clip: 10%

전반적인 구성

- Overall organization of PPT file: 10%