
Computer Architecture

Prof. Seong-Won Lee

1

Course Information

- **Instructor**
 - Prof. Seong-Won Lee (swlee@kw.ac.kr)
- **Teaching Assistant: TBA**
- **Textbook**
 - **Computer Organization and Design:
The Hardware/Software Interface, 5th Edition
By David Patterson and John Hennessy**
- **Grading Policy**
 - **Midterm (30%), Final (40%), Homeworks (20%), Attendance (10%)**
 - **Check the announcements regularly**

Course Outline

- **Computer System Performance**
- **Instruction Set**
- **Arithmetic & Operators**
- **Processor: Control and Data Path**
- **Pipelining**
- **Memory Hierarchy**
- **I/O**
- **Multiprocessor**

Why Study Computer Architecture?

- **Understanding**
 - Learn the inner workings of processors
 - Understand hardware/software interaction
 - Design better operating systems and compilers
- **Career Prospects**
 - **Companies directly working in architecture**
 - Intel, AMD, Sun/Oracle, Arm, IBM
 - **Systems Software**
 - Google, Samsung, VMWare, Wind River, McAfee
- **Higher Studies ...**