

Computer Organization

Course Information

- Instructors

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- Teaching Assistants

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- Course Website

- <http://os.csie.ncku.edu.tw> [courses 頁面]
 - announces and slides will be posted here

Textbook

- Textbook
 - Computer Organization and Design: The Hardware/Software Interface, 5th ed. (Asian Edition), by David Patterson and John Hennessy



Topics Covered

- Computer Abstraction and
 - Performance
 - Power Wall
- Instructions
 - MIPS instruction format
- Arithmetic for Computers
 - Addition/Subtraction
 - Multiplication/ Floating point
- The Processor
 - Data path /pipeline
- Memory Hierarchy
 - Cache basics/ Virtual memory

Prerequisite

- Introduction to Circuits Theory and Digital Electronics 數位電路導論 (F720401)
- Introduction to Digital System 數位系統導論 (F720900)
- Programming Language: C and Verilog

Grading

- Homework & Labs (40%)
 - 4 homework assignments
 - 2 Labs
- Mid-term examination (20%)
- Final examination (20%)
- Quizzes (20%)