CSE30101: Computer Architecture

JONGEUN LEE

SCHOOL OF ECE, UNIST

Course Information

- **Time and Classroom**

  – Mon & Wed 10:30-11:45am

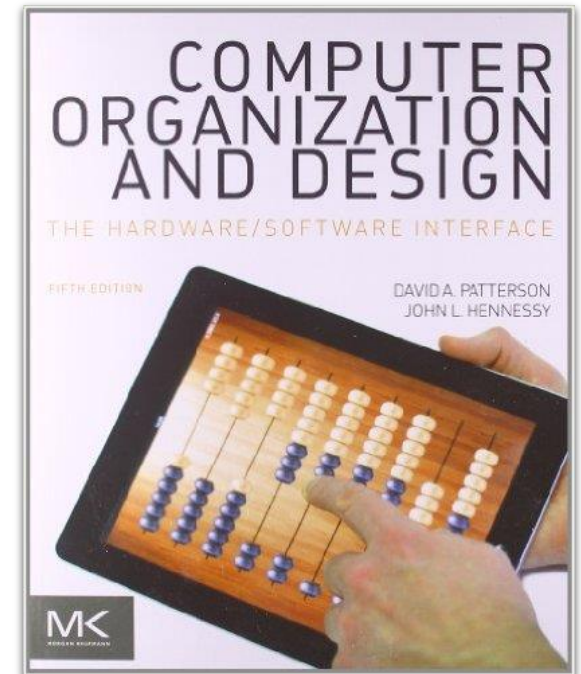 – Classroom: 106-T202

- **Instructor**

  – Jongeun Lee, School of ECE, jlee at unist

  – Office: 106-501-5

  – Office hours: Wed 19:00 – 20:00, or by appointment

- **TA**

  – Sugil Lee (sglee17@unist.ac.kr)

  – Office: 106-503 (reconfigurable and neuromorphic lab)

Textbook

- **Computer Organization and Design, 5th ed.: The Hardware/Software Interface**

  - D. Patterson (UC Berkeley) & J. Hennessy (Stanford)

  - Winner of 2014 Textbook Excellence Award ("Texty") from The Text and Academic Authors Association

What?

- **Ch 1: Computer abstractions and technology**

- **Ch 2: Instruction-Set Architecture (ISA)**

- **Ch 3: Arithmetic for computers**

- **Ch 4: Processors (datapath, control, pipeline, etc.)**

- **Ch 5: Memory hierarchy (cache, virtual memory)**

- **Ch 6: Parallel and advanced computer systems (multi-core, multi-thread)**

Design / Analysis

Prerequisites

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  - Digital Logic (CSE201) or Digital System Lab. (CSE201)

  - Systems Programming

  - Object-Oriented Programming (CSE241)

    or Proficiency in the C/C++ programming language

Important Notice

1. **Remember and abide by the UNIST honor code**
   For detail, see: **ACADEMIC INTEGRITY (UNIST ECE) V1.0.DOCX**

2. **If you miss 25% of classes, you will get an automatic F grade (UNIST policy)**

3. **Having your ID card read without actually showing up in class, or any other form of proxy attendance, is a violation of the UNIST honor code, with consequences**

4. **Projects are an integral part of this course;**
   Failure to submit for one or more projects may result in an F grade irrespective of other portions' score

5. **Instructor reserves the right to give an F grade for those who show _very_ poor performance**

Logistics

- **Classrooms**
  - First 2 weeks: Bb Collaborate
  - From March 30: back to classroom (106-T202)
  - Makeup classes: April 4, April 18 (same time, same classroom)

- **Bb**
  - Q&A Forum
  - Subscribe !

- **IT tools**
  - Windows PC for MIPS simulator
  - Linux for project submission (uni06.unist.ac.kr)
  - Need to know how to use "ssh" (e.g., **putty** from Windows machine)

Grading

- **10% Attendance + on/off-line participation**

- **30% Assignments (Homework, Projects, etc.)**

- **30% Midterm exam**

- **30% Final exam**

- **Note**

  - C/D/E/F will be given to those showing very low performance

  - But if you work diligently, it won't be difficult to get B-level or above

  - F if you miss one out of four classes (UNIST policy)