

# COURSE DETAIL

## INTRODUCTION TO COMPUTER ARCHITECTURE

**Country**

Korea, South

**Host Institution**

Korea Advanced Institute of Science and Technology (KAIST)

**Program(s)**

Korea Advanced Institute of Science and Technology, KAIST

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Electrical Engineering Computer Science

**UCEAP Course Number**

118

**UCEAP Course Suffix****UCEAP Official Title**

INTRODUCTION TO COMPUTER ARCHITECTURE

**UCEAP Transcript Title**

INT COMPUTER ARCHIT

**UCEAP Quarter Units**

4.50

**UCEAP Semester Units**

3.00

## Course Description

This course introduces the basic principles and hardware structures of a modern programmable computer. Students will explore computer architecture as the science and art of selecting and interconnecting hardware components to create a computer that meets functional, performance and cost goals.

Students will learn how to design the control and datapath for a pipelined RISC processor and how to design fast memory and storage systems. The principles presented in lecture are reinforced in the laboratory through design and simulation of a register transfer (RT) implementation of a RISC processor pipeline in Verilog.

### Language(s) of Instruction

English

### Host Institution Course Number

EE312

### Host Institution Course Title

INTRODUCTION TO COMPUTER ARCHITECTURE

### Host Institution Course Details

<https://ee.kaist.ac.kr/en/node/13102/>

### Host Institution Campus

### Host Institution Faculty

### Host Institution Degree

### Host Institution Department

### Course Last Reviewed

2024-2025

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