

SYSTEM SOFTWARE (SYSTEM PROGRAMMING)

Jo, Heeseung

Class Materials

<https://cslab.cbnu.ac.kr>

- <http://software.cbnu.ac.kr> > 학과소개 > 교수진소개 > 조희승
- Check "Notice" and "Schedule" before every class
 - Everything will be posted
- Class materials will be updated frequently
 - After class it might be finalized

Instructor

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- Tel: 043-261-3757
- The best way to contact me is via email

Course Description

In this course, we will study the lower concepts of computer systems through assembly language

Especially, from the perspective of programmer, we will focus on assembly programming language and how a computer launches applications and stores information

Topics & Materials

Course outline

Representing and Manipulating Integers

Representing and Manipulating Floating Points

Byte Ordering

Machine-level Representation of Programs

Introduction to IA-32

Assembly I Basic Operations

Assembly II Control Flow

Assembly III Procedures

Assembly IV Complex Data Types

Buffer Overflow

Linking

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Prerequisites

Prerequisites

- C language

You should be familiar with the followings:

- Basic computer organization
- Computer architecture
- Data structure and algorithm understanding
- C programming skills
 - Data type, basic statement, I/O functions
 - Array, pointer, memory allocation, structure

Time Table

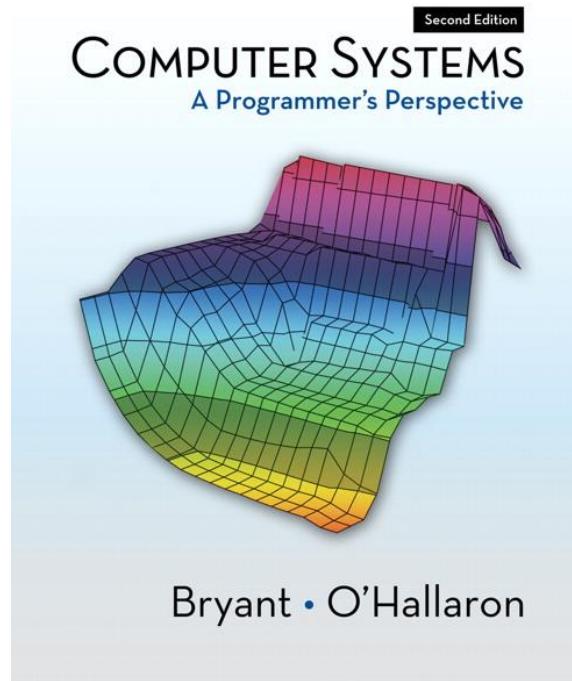
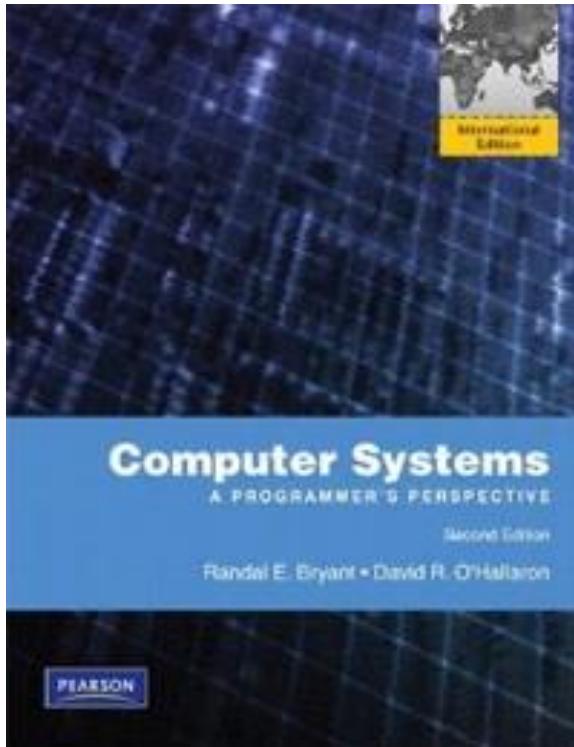
교시 50	월	화	수(50)	목	금(50)
0교시 08:00 ~ 08:50					
1교시 09:00 ~ 09:50					
2교시 10:00 ~ 10:50					
3교시 11:00 ~ 11:50					
4교시 12:00 ~ 12:50					
5교시 13:00 ~ 13:50		시스템소프트웨어 5118015-02 조희승 S4-1-106(21-106) 5교시	서버프로그래밍 5120017-01 조희승 S4-1-201(21-201) 5교시		
6교시 14:00 ~ 14:50		시스템소프트웨어 5118015-02 조희승 S4-1-106(21-106) 6교시	서버프로그래밍 5120017-01 조희승 S4-1-201(21-201) 6교시		
7교시 15:00 ~ 15:50	시스템소프트웨어 5118015-01 조희승 S4-1-104(21-104) 7교시	시스템소프트웨어 5118015-01 조희승 S4-1-104(21-104) 7교시			
8교시 16:00 ~ 16:50	시스템소프트웨어 5118015-01 조희승 S4-1-104(21-104) 8교시			서버프로그래밍 5120017-01 조희승 S4-1-201(21-201) 8교시	
9교시 17:00 ~ 17:50			시스템소프트웨어 5118015-02 조희승 S4-1-106(21-106) 9교시	서버프로그래밍 5120017-01 조희승 S4-1-201(21-201) 9교시	
10교시 18:00 ~ 18:50					

Textbook

Most class materials will be provided

Computer Systems: A Programmer's Perspective

- Randal E. Bryant and David R. O'Hallaron, Prentice Hall, Inc.



Grading

Grading ratio

- Exams: 60-80% (two exams)
- Homework, etc.: 20-40%

No cheating

- Sharing or copying of solutions is not allowed
- Of course, cooperation on exams is not allowed
- Definitely F + alpha

Attendance Policy

Do not be late!

- You should be present when I take class attendance

You can miss the class up to "three" times without any penalty

- More than 3 times, then D

Reserved Seat in Class

- We will use reserved seat in this class for this semester
- Your seat will be reserved at the next class

TA

TA

- TBA

TA class

- Ask helps anything !
- Homework submission
- Solving homework
- Questions about the class

Before Start

What is Computer?

- How does it work?

What is "data type"?

How does a C program work?

How can we write a **better** program code?