

## **Computer Network, Spring 2025**

### **1. Why do we study linear computer network?**

As an infrastructure network, computer network allows us to deliver our information from one place to another place. To design and manage computer network we need to answer following questions.

- How can we deliver our information fast (without delay)?
- How can we deliver our information reliably (without error)?
- How can we accommodate more number of customer (end systems) with a given network?

To answer these questions and thereby improve the performance of current computer network, at least we need to understand how computer network works.

### **2. What will we learn in this class?**

The most representative and prevailing computer network is Internet. In this class we will see how Internet works to meet our demand, that is to deliver our information with required QoS (Quality of Service) and to manage the network efficiently. Lecture will be delivered following the 5 layer structure of Internet (Application, Transport, Network, Link, and Physical Layers).

- 1) Chapter 1. Introduction (Big picture of computer network before going into detail)
- 2) Chapter 2. Application Layer (will be skipped)
- 3) Chapter 3 Transport Layer
- 4) Chapter 4. Network Layer
- 5) Chapter 5. Link Layer (Wired)
- 6) Chapter 6. Wireless Link Layer

At the end of each Chapter we will see how real network works through Wireshark Lab.

### **3. Text**

Computer Networking, Kurose and Ross, Pearson International Edition, 7th edition

4. Lecture will be given using PPTs, which can be downloaded from lecture material in e-class. It is strongly recommended to go through PPTs before class.

## **5. Evaluation**

- a. Midterm (33%) for Chapter 1 and 3
- b. Final (33%) for Chapter 4, 5, and 6
- c. 5 Homeworks ( $4\% \times 5 = 20\%$ ) for Chapters 1, 3, 4, 5, and 6.
- d. Attendance (14%)

## **6. Grade**

- a. Since computer network is a module class, you have higher chance of getting good grade.
  - b. Your exam papers and homeworks are thoroughly examined to find out any kind of cheating. In case of any kind of cheating you will have F grade.
7. After class lecture will be summarized in Korean, around 5 minutes or so.