

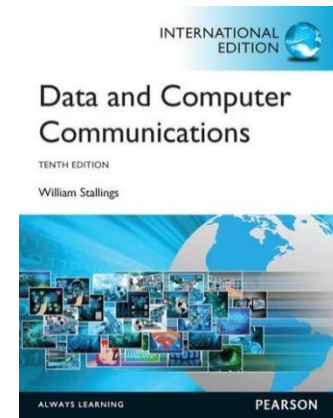
Syllabus for Data Communications

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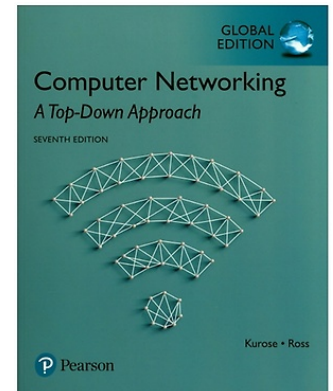
■ Textbook

- Data and Computer Communications, 10th Ed., Prentice Hall, William Stalling



■ Reference

- Computer Networking: A Top Down Approach, 7th Ed., Pearson, Kurose & Ross



■ Learning Objectives

- The aim of this course is to provide **a unified overview** in data and computer communications.
- The lecture series emphasize **basic principles and key technologies** of data communications (Layers 1 ~ 4)

Course Description (I)

- Overview (Reference chap. 1)
- Socket Programming
- Signal Encoding (chap. 5)
- Modulation and Demodulation (chap. 5)
- Error Detection and Correction (chap. 6)
- Link Control Protocol (chap. 7)
- An Event-driven Simulation Programming
- Multiplexing (TDM, FDM) (chap. 8)
- Multiple Access (TDMA, FDMA) (chap. 8)

Course Description (2)

- LAN Overview and Bridge (chap. 11)
- Wired LAN-Ethernet (chap. 12)
- Wireless LAN-WiFi (chap. 13)
- Cellular System, Spread Spectrum and OFDM (chap. 10)
- Packet Switching (chap. 9)
- IP and Routing, ICMP (chap. 14, 19)
- TCP/UDP and Internet Congestion Control (chap. 15, 20)

Grading

- Homework: 30 %
 - Simple socket programming
 - Simple event-driven simulator 작성
 - Performance evaluation of communication system using NS-3 simulator
- Exam
 - Midterm Exam. (30 %~35 %)
 - Final Exam. (30 %~35 %)
- Attendance: 0 % ~10 %
 - Students who are absent for over 1/4 : D- or F
- A (25 % ~ 30 %), B (35 % ~ 40 %),
C (25 % ~ 30 %), below D (0 %~15 %)